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ABSTRACT

The Health, Science, and the Environment section of this collection of conference presentations contains the following 10 papers: "Telling Stories about Superfund Sites" (Sharon Dunwoody and Robert J. Griffin); "Understanding Audience Reactions to AIDS Messages: An Adaptation of the Meaning-Based Model" (Sujatha Sosale); "Newspapers Provide Functional Information in Controversial Contexts for Consumers To Act: A Study about a Hazardous Waste Incinerator Issue at East Liverpool, Ohio" (Juanita Evans Dailey); "The War on Drugs: A Constructionist View" (Michael P. McCauley and Edward R. Frederick); "Packaging Dissent: Radical Environmentalism, Television News, and Ideological Containment" (Rick Clifton Moore); "Dimensions Influencing Risk Perception: The Case of Lung Diseases" (Leandro L. Batista and Dulcie Straughan); "Reacting to the 'S' Word: Newspaper Type, Community Location and Coverage of Suicide News" (Marshel D. Rossow); "'The Plague' over Time: A Longitudinal Study of How Newspaper Type and Community Location Have Influenced Basic Decisions about AIDS Reporting" (Marshel D. Rossow); "Take A Bite Out of Problems: PSA Research Reviewed and Extended" (Virginia Roark); and "Media, Opinion, and Global Warming: An Agenda-Setting Study of an Environmental Issue, 1988-1992." (Craig Trumbo). (NH)

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Telling Stories About Superfund Sites

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Telling Stories About Superfund Sites*

Reporting on environmental contamination presents journalists with enormous challenges. For one, pollutants often constitute health hazards, saddling reporters with the task of explaining the extent and nature of those risks. For another, pollution problems usually come wrapped in highly technical language, making explanation of even the simplest phenomenon difficult indeed. For yet another, environmental contamination, like other environmental issues, is awash in ambiguities. Experts rarely seem to know what a particular chemical does in a particular situation, and even when they claim to know, they may disagree. Finally, this kind of environmental issue can take years to resolve, a disconcerting state of affairs for an occupation--journalism--that wants to limit itself to what happened today.

In this study we characterize some of the ways journalists cope with coverage of a specific class of long-term environmental risks: Superfund sites in the United States. Specifically, we explore the development of the ways that media organizations interpreted the newsworthy attributes of three contaminated sites in Wisconsin, starting from their designation as Superfund sites some years ago. We interpret our data through the lenses of three conceptual frameworks. The first is the concept of schema or frame, an individual-level cognitive structure that guides a journalist's process of "making sense" of a story. The other two concepts are factors that could strongly govern the construction of journalistic frames: occupational norms and community structures.

Theoretical Framework

Frames

All individuals interpret their world by calling on knowledge structures that are acquired through shared social learning, individual experiences, and personal reasoning (Graber, 1988). If two individuals who encounter workers toppling a large, aged tree in

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their neighborhood react differently, they may do so in part because that event has activated two very different interpretive schemata, or frames. One person may view the scenario with relief because she defines the tree as a potential hazard that strong winds may send crashing onto nearby homes. The other, conversely, may react to the process with sadness since he views the tree as a grand old survivor of pre-settlement days. "Humans," says Mendelsohn (1990, p. 38), "act according to what they know and understand (or misunderstand), and not necessarily according to what they simply see or hear."

These mental maps come in varying levels of sophistication across individuals and, for any one person, will differ in level of detail across topics. The important point is that they play a crucial role in sense-making. Things in our world have meaning only to the extent that they get incorporated into these customized frames.

Journalists, too, make sense of their world by incorporating stimuli into their available cognitive maps (Gitlin, 1980; Stocking and Gross, 1989). However, they employ frames not only to interpret phenomena for themselves but also to construct the stories that we encounter in our daily newspaper or TV news reports. "A frame," say Tankard et al. (1991, p. 5), "is a central organizing idea for news that supplies a context and suggests what the issue is through the use of selection, emphasis, exclusion, and elaboration."

These frames are essential for journalistic work because reporters and editors must make speedy decisions about what in their environment is worth their attention. A journalist with 30 minutes to write a story does not spend much time contemplating "what the story is about." That particular decision is made in seconds, and the reporter then uses the bulk of her 30 minutes to select and order information in ways that are consonant with the chosen meaning framework.

Considerable evidence suggests that the frames that journalists use for story construction are not idiosyncratic (e.g., Rachlin, 1988; van Dijk, 1988). Rather, journalists across a wide range of media seem to employ similar mental maps and, thus, produce stories that reconstitute the world in similar ways. Evidence is growing that those frames influence the ways in which stories about science and environment are constructed for public consumption.

For example, when a nuclear power plant at Three Mile Island sprang a leak in 1979, many media organizations defined the event initially as "an accident" and sent general reporters--individuals adept at covering fast-breaking news--to the scene. It was not until many of these journalists began floundering in a sea of technical terms and terrifying images--for example, the ominous hydrogen bubble that was hypothesized to be growing inside the damaged reactor--that these organizations redefined the event and sent in their science reporters. Rubin, who headed a subsequent investigation of media coverage of TMI,

reported that journalists' information-gathering efforts were so accident-oriented during the crisis that "science writers had little opportunity to ask sophisticated questions of knowledgeable sources" (Rubin, 1980).

Similarly, a study of journalists' coverage of social science research topics by Weiss and Singer (1988) found that reporters rarely defined the topics they dealt with as belonging to the domain of science or of scientific disciplines but, instead, framed them as "crime stories" or "poll stories." The absence of a "science" frame, then, made the use of scientific information rare in these accounts. For example, if a journalist decided to write a story about the homeless, he might very well frame it as a "first-person feature story" without ever considering that social scientists not only have tried systematically to count the number of homeless but also have sought explanations for their presence on urban streets around the world. A feature story frame may send our journalist out on the streets overnight to talk with homeless individuals, but it will not prompt him to seek out the kind of scholarship that might help his audience understand the homeless as a social phenomenon.

In a more recent study, Ryan, Dunwoody and Tankard (1991) examined newspaper and magazine coverage of two risks--a nuclear power plant accident and publication of a study positing a relationship between coffee-drinking and pancreatic cancer--and concluded that coverage differences were more closely related to the employment of different frames than to other predictors. The coffee and pancreatic cancer story was immediately defined as a "risk" story, while the nuclear power plant story was defined as an "accident" story. As a result, stories about the former concentrated on explaining the risk while stories about the latter focused on "what happened" in the course of the accident. Although small amounts of radioactive steam did escape from the power plant during the accident, journalists paid little attention to questions of risk in their stories.

Similarly, in a case study of how two newspapers covered speculation about a possible link between Lou Gehrig's disease and processed sewage sludge, Dunwoody (1992) found that journalists' initial definitions of "what this story is about" seemed to play a major role in the sources they selected and in the ways reporters interpreted the information they received from these sources. Journalists who saw the linkage as likely interpreted data as supporting that contention while those who initially defined the linkage as unlikely interpreted the same data quite differently.

Do either occupational or societal factors contribute to this pattern of frames? We ask those questions next.

Occupational norms

Many researchers who study media stories about risk attribute coverage patterns to journalistic occupational practices. For example, based on their research, Greenberg et. al. (1989) argue that topic choices by network TV news journalists are associated more with occupational standards of newsworthiness than with level of risk. Similarly, Singer and Endreny assert that the poor fit between amount of media coverage and level of risk in the stories they examined could be understood if news judgments are taken into account:

> A rare hazard is more newsworthy than a common one, other things being equal; a new hazard is more newsworthy than an old one; and a dramatic hazard--one that kills many people at once suddenly or mysteriously--is more newsworthy than a long-familiar illness (Singer and Endreny, 1987, p. 13).

The bottom line, say these and other researchers, is that normative practices of the occupation--among them definitions of news, the presence of deadlines, and equipment constraints--play an overwhelming role in frame construction. A journalist's personal preferences notwithstanding, she will "see" dimensions of her world as newsworthy only through the prism constructed by those norms. The prism, likely, is invisible to the reporter. But its impact is substantial.

For example, Dunwoody (1979) studied the behaviors of major U.S. science writers who were covering a large scientific meeting. She found that reporters defined the sprawling, days-long meeting as a series of discrete events (paper presentations) that could be framed for audiences as brief, timely accounts of research. Stories culled a small number of presentations from the literally hundreds available at the meeting and presented them as THE news of the day. The bulk of the meeting's contents were rendered invisible, Dunwoody contended, by a process that highlighted not the most important science information but information that accommodated such constraints as a reporter's deadlines, the specter of competition from rival science reporters, and the need to select topics that the editor would find worthy.

Phillips takes this a step further, arguing that occupational norms reward journalists for defining the world in a discrete, fragmented way and effectively bar them from seeing bigger, more conceptual frames:

> Journalists are nontheoretic knowers who depend upon instinctive, concrete, first-hand "acquaintance with" events, not formal, systematic "knowledge about" events....Unlike the social scientist or engineer who looks at a discrete event or fact through concepts derived from a theory, the journalist...apprehends "reality" by noting concrete signs (Phillips, 1977, p. 70).

In their study of New Jersey newspapers' coverage of environmental stories, Sandman et al. (1987) found support for the influence of organizational/occupational norms when they

asked reporters to explain why stories were constructed in particular ways. For example, journalists sent to cover environmental emergencies explained that their primary goal was to report what happened, not to delve into the nature and extent of the risk. Noted the authors:

> In large part, the tendency to favor the details of the emergency over the health risk details is journalistic tradition; journalists have typically been trained to cover emergencies, and that is what they feel comfortable doing (p. 67).

Community Structures

The effects of macro social systems, such as communities, on communication is a topic ripe for more research (McLeod and Blumler, 1987). Over the years, a number of scholars have argued that powerful influencers of social meaning exist at the societal level. It is the basic structures and ideologies of societies, they say, that control the ways in which individuals, as well as groups, make sense of their world. Journalists--like everyone else--are very much the creatures of prevailing social norms and power structures.

Exploring the role of such structures empirically is difficult. But one team of mass communication researchers, Phillip Tichenor, Clarice Olien and George Donohue of the University of Minnesota, offers a strategy that we utilize here. They examine the impact of community structure on journalistic decision-making by differentiating communities in terms of community "pluralism," or structural diversity.

As Tichenor, Donohue and Olien (1980) note, communities that are more pluralistic have, by definition, a larger and more diversified population, a greater number and variety of interest groups, and a more heterogeneous distribution of power bases. Less pluralistic communities, in contrast, tend to have a smaller and less diversified population and fewer centers of power. Low-pluralism communities tend to work in an atmosphere of consensus, with decision-making commonly based on precedent and tradition. High-pluralism communities, in contrast, work in an atmosphere of greater conflict, and decision-makers are forced to take into account the interests of the various groups that are often at odds with one another.

News media are an integral part of communities and tend to reflect the concerns of the power structure of their particular setting, usually serving as reinforcers of established authority, powerful interests, and mainstream values (Olien, Tichenor and Donohue, 1989). In less pluralistic communities, as Olien, Donohue and Tichenor (1968) note, news media play roles as legitimizers of projects, builders of consensus, and instruments for tension management. Such media would treat conflict within their communities very gingerly, as such conflict could threaten existing power bases. Reporting that would point

fingers at individual or institutional members of the community, expose local wrongdoing, or raise sensitive issues would not be consistent with a consensual role.

In more pluralistic communities, however, it is difficult for community leaders and interest groups to settle conflicts through interpersonal channels. Conflict is a more routine part of public life in these communities, and negotiations must take place at formal, public levels (e.g., via public hearings, trial balloons, events staged by interest groups to get media attention), resulting in more conflict reporting by the mass media (Olien et al., 1968, 1989; Donohue, Olien and Tichenor, 1985b). Community leaders in more pluralistic communities are more likely than those in less pluralistic communities to perceive the local press as taking the initiative in reporting conflict (Donohue et al., 1985a), and in general the news media in more pluralistic communities tend to perform more of a "feedback" role by drawing attention to local problems (Tichenor et al., 1980).

As Olien et al. (1978) observe, community pluralism ultimately affects the configuration of information available to citizens. But how would those effects be manifested in coverage of environmental risks? In one study of newspaper coverage of a high-level nuclear waste repository siting issue, Dunwoody and Rossow (1989) found that newspapers in more pluralistic communities covered the issue more extensively, were more likely to reflect conflicting views, and did more enterprise reporting on the topic than did newspapers in more homogeneous settings. The behavior of the media in less pluralistic settings suggested they were trying to minimize social disruption by minimizing coverage of the issue itself.

Before turning to the case studies, which explore how these two classes of predictors--organizational/occupational norms and community structure--influence coverage, we first briefly explain the Superfund siting process.

Superfund sites

In 1980, the U.S. Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), now commonly known as "Superfund." This act authorized the U.S. Environmental Protection Agency to investigate and respond to releases of hazardous substances that may constitute a risk to human health or to the environment. Congress reauthorized the law in 1986, increasing the funds available for cleanup from $1.6 billion to $8.5 billion.

Sites are inspected and, if they pose serious enough risks, are added to the U.S. EPA's National Priorities List, a roster of the nation's worst hazardous waste sites. All sites on the list are eligible for Superfund money. Once listed, each site undergoes a lengthy set of investigations to determine the type and extent of contaminants present, their likely risk to

human health, and the feasibility of various cleanup options. EPA also tries to determine who caused the contamination and actively solicits the help of perpetrators in cleaning it up. These so-called "potentially responsible parties," if they are still in business, are often reluctant to take responsibility for the problem, inviting protracted legal battles. Throughout the Superfund process, EPA holds public hearings to update citizens in communities surrounding the sites.

As of 1992, the U.S. EPA had placed 1,275 sites on the National Priorities List. Cleanup has been completed at only 80--a mere 6 percent--of those sites.

Research Questions and Methodology

Our primary questions were as follows:

•What were the dominant frames that journalists employed to organize information about the Superfund sites, and how did those frames change over time for any one site?

•What role did information about the level of hazard play in coverage of these sites?

•Did occupational norms influence coverage?

•Did community structure seem to play a role in the way that newspapers covered a site?

Of the 1,275 sites throughout the country, 39 are in the state of Wisconsin. Three of those 39 sites are the focus of this study.

The three sites fit a number of criteria that we considered important to our study of media coverage. None had prompted the widespread--and atypical--publicity of Love Canal, in New York, or Times Beach, Missouri, yet each had generated local media attention during its life span and was still "active" at the time of the case study. In each case the Superfund location was served by at least two newspapers of different sizes, usually from different communities, a factor important to the consideration of community structure as a predictor of coverage patterns. Finally, in each case the Wisconsin Division of Health had completed studies of health risks posed by the site and had reported those risks to residents and to journalists. Thus, specific information about the type and extent of health risks was available to interested parties.

For each case study, we gathered Superfund stories from available newspapers from the beginning of the community's awareness of contamination to 1992. In some cases, newspaper librarians conducted keyword searches and then sent us copies of stories. In others, we searched individual copies archived in the Wisconsin State Historical Society. We did not formally content analyze these stories but, instead, read them as a means of isolating frames of meaning that could then serve as a basis for interviewing individuals at the sites.

We then journeyed to each site to interview journalists, editors and sources. These individuals were identified initially from the newspaper coverage, but we also picked up additional sources by asking individuals to name others important to the issue. Finally, we interviewed the EPA remedial project manager responsible for each site at EPA Region 5 offices in Chicago, IL. In the course of gathering information for the three sites, we interviewed 28 individuals. Individuals also gave us access to agency reports, fact sheets and press releases.

The raw data for each site, then, consisted of handwritten notes and audio tapes of each interview, as well as the newspaper stories themselves and a variety of print materials produced by state agencies and the U.S. EPA.

Although each site offered unique insights, space does not allow us to report findings separately for each. Instead, we will summarize our answers to the research questions posed above. We caution the reader that these case studies amount to an n of 3, so generalization is risky.

Before returning to our research questions, we offer brief histories of each of the sites.

National Presto Industries Site in Eau Claire

Situated on land between the communities of Eau Claire and Chippewa Falls on the western edge of Wisconsin, the 325-acre site was purchased by National Presto in 1948. The company initially produced consumer goods on the site but, in 1954, dedicated the plant to producing metal bodies for projectiles and shells under a contract with the U.S. Department of the Army. That production stopped in the late 1970s, and the facility is now on Department of Defense standby status. National Presto continues to thrive as a producer of small appliances at other plant sites and maintains its national headquarters in Eau Claire.

The DOD work generated millions of gallons of waste water, which was stored in pits and lagoons on the site. Additionally, National Presto also disposed of spent forging compound on the site. The compound, which contained roughly equal parts of asphalt, graphite and mineral oil, was shuttled to an independent location on the property from 1967 to 1969 but also showed up in some of the lagoons.

In the early 1980s, the Wisconsin Department of Natural Resources (DNR) began to test for the presence of contaminants in the National Presto vicinity and, in 1983, detected traces of six volatile organic compounds (VOCs) and five heavy metals in one of the lagoons. The National Presto site became a Superfund site in 1984. In 1986, the DNR obtained clear evidence linking the National Presto wastes to the contamination of private wells serving residents of an unincorporated town, Hallie, adjacent to National Presto. The DNR then

ordered the company to begin supplying these residents with uncontaminated water; National Presto balked.

In 1990, EPA recommended that the Hallie township build its own water system to bypass the contaminated wells. Later that year, National Presto Industries obtained U.S. Department of Army funding to help ameliorate the problem and announced it would make those funds available to help pay for the new water system. As of 1992, the Hallie water system was nearing completion. National Presto is apparently working to clean up its own site and is seeking additional funds from the army.

Since the National Presto Superfund site is situated between Chippewa Falls and Eau Claire, the daily newspapers in those two cities both define the contaminated site as local news. The Chippewa (Falls) Herald-Telegram, an afternoon paper, serves a community of more than 12,700 and had a 1992 circulation of 8,479. The (Eau Claire) Leader-Telegram, also an afternoon paper, is the newspaper of record for a community of some 55,000 individuals and, in 1992, reported a circulation of 31,753.

Better Brite Chrome and Zinc Sites in De Pere

The Better Brite Superfund site is really two industrial sites within a half mile of each other, both located in a residential area of De Pere, a small community adjacent to the city of Green Bay in eastern Wisconsin. Better Brite operated one of the sites as a chromium plating facility, while the other was devoted to zinc plating.

Trouble dogged the two sites. The Wisconsin DNR issued a number of citations to Better Brite in the late 1970s after detecting substantial contamination at the chrome plating site. In 1978, for example, the DNR received complaints about frozen yellow water behind the chrome shop. Inspections indicated extensive chromium contamination of soil and water on the site. The chromium plating tanks, situated largely below ground, were apparently leaking "like sieves," according to one DNR official. The agency estimated that from 20,000 to 60,000 gallons of plating solution may have escaped from the tanks.

The situation at the zinc site was not much better. In the early 1980s, DNR found elevated levels of cyanide, chromium, zinc, cadmium, lead, silver, selenium, copper and nickel in the soil. The site also contained drums of sludge contaminated with cadmium.

The company made some efforts in 1979 to contain the contamination but the state was not satisfied and, in 1980, filed suit to force Better Brite to clean up the chromium plating site. The company apparently did not comply with the order and, in 1985, filed for bankruptcy and halted operations at the chrome site. The zinc site continued operating, initially under bankruptcy and subsequently under a new owner, until 1989.

EPA in 1986 investigated both sites and began clean-up operations. For example, within the next year, EPA removed all on-site contaminants contained in drums or vats, as well as approximately 83 tons of contaminated soils, from the chrome site.

Still, in 1988, neighbors of the now-defunct chromium plating plant complained that water contaminated with chromium was collecting in their back yards. The sites were placed on the agency's Superfund list in 1990. That same year, EPA installed an on-site water treatment system to treat up to 5,000 gallons of chromium-contaminated water per day; the treated water could then safely be discharged into the De Pere sanitary sewer system.

In 1992, the Wisconsin Department of Natural Resources was granted authority to coordinate the remaining cleanup operations and was exploring options for doing so.

De Pere, a community of more than 15,000 individuals, is served by the weekly De Pere Journal, which reported a 1992 circulation of 3,502. Just north of De Pere, where the Fox River empties into Green Bay, sits the community of Green Bay, a city of more than 96,000. Two daily newspapers serve the city, the morning Green Bay News-Chronicle with a 1992 circulation of 9,830 and the dominant afternoon Green Bay Press-Gazette with a circulation of 59,410.

Sheboygan River and Harbor Site

About 50 miles north of Milwaukee on the eastern border of Wisconsin, the Sheboygan River empties into Lake Michigan. The harbor there has long been a prominent feature of the city of Sheboygan and has served as a mecca for both commercial fishermen and recreational anglers; the latter have long enjoyed fishing for Great Lakes trout and salmon in both the river and Lake Michigan.

As far back as 1969, however, periodic tests of sediment samples suggested the presence of pollution. In 1977, the Wisconsin Department of Natural Resources detected significant amounts of polychlorinated biphenyls (PCBs) in fish taken from the river and began issuing health advisories limiting fish consumption. Continued sediment testing confirmed the presence of PCBs and such heavy metals as arsenic, lead, copper, zinc, cadmium, nickel, mercury and chromium. The PCB contamination prompted the U.S. government to place 14 miles of the lower Sheboygan River and the 96-acre harbor on the Superfund list in 1985.

Officials identified at least three companies whose operations might have contributed to the PCB contamination. In 1986, one of those firms, Tecumseh Products Company, signed a consent order with EPA and DNR, agreeing to cooperate in the cleanup. The Diecast Division of Tecumseh is a small engine manufacturer situated on the bank of the Sheboygan River in the community of Sheboygan Falls, a small town a few miles upriver from the harbor. The

company at one time used PCBs in hydraulic fluids, and its proximity to the river meant that periodic flooding probably washed PCBs into the river.

Tecumseh hired a firm to investigate the extent of PCB contamination and ultimately located three PCB "hot spots" in the upper part of the river, where concentrations in the sediments ranged as high as 4,500 parts per million. EPA has dredged these and other sites and is testing the viability of destroying the PCBs in the sediment through biodegradation in a facility built on Tecumseh property. Additionally, in 1990 EPA covered approximately 13,500 square feet of river sediments with layers of fabric and gravel, a process called "armoring."

Tecumseh continued dredging contaminated sediment from the river in 1991 and stored it in a new, 600,000-gallon sediment containment tank on its property. As of this writing, officials continue to monitor the water, fish and sediments for the presence of PCBs. Results of the efforts to biodegrade the PCBs are imminent. A final cleanup plan for the entire site is is forthcoming in 1993.

Sheboygan and Sheboygan Falls each has its own newspaper, albeit of different sizes. The Sheboygan Press, an afternoon daily with a circulation of 27,070, is the newspaper of record in Sheboygan, a community of more than 49,600 residents. The Sheboygan Falls News is a weekly that circulates 2,104 copies to the approximately 6,000 residents of Sheboygan Falls.

Findings

<u>What were the dominant frames within which journalists organized information about the Superfund sites, and how did those frames change over time?</u>

We found more variation in frames across these three sites than we had expected. To a certain extent, stories conveyed meanings that paralleled the Superfund siting and remediation process itself. But there were enough differences in "what the story was about" to lead us to suspect other framing predictors. Here are some of the patterns we found:

•Stories over the lifespan of a Superfund site traveled a reasonably predictable path, from first signalling the presence of contamination to questions of who is responsible for clean up and finally on to issues of how to clean up the contamination in an acceptable fashion. In that sense, frames had a kind of rough linear coherence over time, and that coherence was driven by the the way in which the Superfund siting and remediation process was structured.

•However, all parts of the process were not attended to equally in stories. Some frames had extremely short life spans (see the discussion of representations of health risks below), while others so dominated coverage that they, in essence, became the primary frames within

which the sites were given meaning. In all three case studies, for example, the dominant frame was the final one: how to clean up the problem in a politically acceptable way. For most readers, in other words, the Superfund site in their community was given meaning as a political problem, not a scientific one.

•Frames tended to recur only when sources brought them back. Reporters marched resolutely in their coverage from "what's the contaminant" through "is the contaminant harmful?" "Superfund promises help," "who's responsible for the problem?" and on to "how do we clean this up?" Frames left behind never resurfaced unless a source put them back on the journalists' agenda. Again, the health risk frame discussed below offers a good example of that.

What role did information about the level of hazard play in coverage of these sites?

Level of hazard flares briefly as a theme at the beginning of coverage of each of these sites. But in two of the three case studies it quickly vanished as a story frame. Over the life span of these Superfund sites, in other words, little newspaper space is devoted to a discussion of the risks posed by the sites. We will discuss some reasons for that when answering the question about occupational norms.

In only one case study does health risk cycle back on a regular basis to constitute a major story frame through the life span of site coverage. That one--the Better Brite sites--offers an example of the power of sources to set the journalistic agenda. In this case the emphasis on health risk can be attributed to the efforts of a single family, whose home abuts the chromium plating site. For years, family members witnessed yellow pools of water in their back yard, yellow-tinged snow, and yellow water flooding into area basements during spring rains. Despite official conclusions that the chromium contamination does not pose a significant threat, family members have complained that it has caused a variety of health problems. As one of them told a Press-Gazette reporter:

"It's not stretching it to compare this to Love Canal. In our family everyone has some nerve damage. We've had cancer in one of our daughters. And we're all especially susceptible to skin rashes."

Reporters have generally been sympathetic to the concerns of neighbors of the site and have responded with stories. Thus, health risks have remained a recurrent theme in coverage of the Better Brite sites.

One might counter that risk recurs in the media coverage of this particular site not because sources are driving frames but because this site is more hazardous than the others; in other words, recurring coverage reflects the presence of a greater risk. But in fact, among the three case studies examined here, the Better Brite sites may be the least

hazardous. The Wisconsin Division of Health's preliminary assessment of the risks on site in 1990 found that remaining levels of the most ubiquitous contaminant at the sites--chromium--did not present a health risk. Health officials' primary worries were for the future: that investigators might yet detect abnormally high levels of lead on the sites and that contamination might eventually find its way into the city water wells.

Did occupational norms influence coverage?

We noticed two occupational norms at work in these case studies:

1. Stories were driven primarly by events. For most newspapers in this study, a Superfund site remained invisible unless someone scheduled a hearing to talk about it, issued a press release to comment on it, or called the newspaper office to complain about it. With only a few exceptions, newspapers in these case studies reacted passively to this major story within their coverage areas.

The smaller the newspaper, the less interested that newspaper professed to be in the issue. We will try to explain some of that difference below, in a discussion of the impact of community structure on framing decisions. But it is also clear that organizational resources came into play at this point as well. Newspapers with more resources could devote more time and space to Superfund sites.

An example of this is the Green Bay Press-Gazette, which covered the Better Brite sites extensively. Although the site was in an adjoining community, De Pere, the Press-Gazette devoted numerous stories to the issue. Why? The Press-Gazette had an environmental reporter, Terry Anderson, and Anderson regarded the Superfund site as part of his beat. He treated Better Brite as an ongoing story, touching base periodically with the EPA, the DNR, and with concerned residents. He did some enterprise reporting. For example, in 1988 he wrote a story about the perceived travails of the family whose home abuts part of the site. In 1989 he returned to talk to troubled families in the area and, in the same issue, did a historical retrospective. In our view, the resources of the Press-Gazette led to the most comprehensive reporting of a Superfund site that we encountered in these case studies.

2. Occupational assumptions about audience served to minimize the amount of attention paid to health hazards inherent in these sites. Journalists rarely have enough knowledge of their diffuse audiences to know of their interests or needs with certainty. So occupational assumptions have taken the place of that knowledge. Two such assumptions that seemed to be at work here are:

•Audience members are careful readers who accumulate--and remember--facts over time. Thus, stories dealing serially with dimensions of an issue will all get incorporated into a reader's understanding of that issue.

•Readers will become impatient with redundancy.

We queried our reporters and editors about why they rarely included information about the hazards inherent in these three Superfund sites. The response of one reporter covering the Sheboygan River and Harbor site for The Sheboygan Press is typical. He termed the health risk theme "old news" and asserted that readers already familiar with the risks at hand do not want to see the same information rehashed in subsequent stories.

Did community structure seem to play a role in the way that newspapers covered a site?

Yes. These case studies uncovered numerous instances consistent with Tichenor, Donohue and Olien's argument that newspapers in more homogeneous communities will downplay the "danger" posed by a Superfund site while those in more heterogeneous communities will allow conflict and dissension to bubble to the surface. We offer two examples:

National Presto: Both the communities adjacent to this site are relatively small: Chippewa Falls has fewer than 15,000 residents and Eau Claire has fewer than 60,000. Thus, both communities are probably structurally homogeneous. One would expect newspapers in such towns to practice consensual journalism; that is, one would expect them to support the social fabric by playing down internal community conflict.

Internal strife was a distinct possibility here, for the contaminator, National Presto, continues to be a prominent, local company that, at one time, was the biggest employer in the area. Exacerbating the issue was the company's reaction to the problem: It worked to avoid responsibility for the contaminated ground water and to avoid paying for cleanup.

How does a newspaper in a homogeneous community reflect reality when the villain is a local good corporate citizen who is balking at taking responsibility for a problem? You cannot ignore the issue or the company. But you can play down the company's role. Thus, you don't highlight the company as a central player in the drama. You don't cover the company aggressively. It never becomes the ultimate bad guy in your stories. Those patterns, we argue, characterized treatment of National Presto in the coverage by the Eau Claire Leader-Telegram and were also reflected in the early coverage by the Chippewa Falls Herald-Telegram.

But what illuminated this pattern most vividly, we felt, were the repercussions that apparently stemmed from a change in coverage of National Presto initiated by the Chippewa Falls newspaper in the late 1980s. Initial coverage by the Herald-Telegram had all the markings of supportive journalism. The newspaper had been running very few stories about the site, and those stories rarely took National Presto to task. But in 1987 a new editor, Mark Baker, came on board. And he took a different tack. To Baker, National

Presto's behavior made the company "a poor corporate citizen," and he felt his newspaper's coverage should reflect that. Subsequent stories were so hard on National Presto, said Baker, that the company complained about the new editor to the newspaper's publisher. The publisher subsequently asked Baker for an explanation. Baker, in urging his newspaper to actively serve as a community watchdog, apparently had violated assumptions about the role of the newspaper in that community.

Better Brite: Here, the interesting comparison is between the daily Green Bay newspapers and the weekly De Pere Journal. The Journal serves a small, homogeneous community, while the Green Bay papers provide information to one of the larger cities in Wisconsin. As one would expect, the newspapers in these two communities indeed covered Better Brite in ways that reflect that "consensual vs. conflictive" difference.

For example, the Green Bay newspapers did not hesitate to depict the (now gone) owners of Better Brite as bad guys who balked at cleaning up the contaminated sites and then, by declaring bankruptcy, fled their responsibilities entirely. The De Pere newspaper, on the other hand, not only avoided the issue of who is to blame but also seems to have ignored the former owners entirely.

The two newspapers also took very different approaches to interpreting the health risks at the site, particularly in the latter stages of coverage. While the Green Bay newspapers framed the site as posing a danger, the Journal defined the risks as nonproblematic.

For example, when the Wisconsin Division of Health issued a preliminary health report in 1991, the Green Bay Press-Gazette began its story with the following lead: "The former Better Brite plating shops in De Pere pose health problems to neighbors, a new study suggests."

Contrast that with the De Pere Journal lead on the same information: "'We have alleviated the immediate threat to humans and the environment,' David Linnear, U.S. Environmental Protection Agency (EPA) Remedial Project Coordinator, said in reference to the initial clean up at the Better Brite chrome and zinc shop sites in west De Pere."

Behind these very different frames, we think, are important community differences that are reflected in newspaper behavior. The Green Bay newspapers serve a large and varied community that has wrestled with its share of environmental polluters over the years. Reporters and editors don't soft pedal stories about damage done by local paper mills, and Better Brite looms as just another in the panoply of polluters.

The De Pere Journal, on the other hand, serves a small, homogeneous community and its staff is proud of the newspaper's ties to the town. The newspaper clearly views itself as part of the support network for the community and, we think, worked to frame the Better

Brite issue in ways that downplayed a story that seemed to reflect poorly on the town, on local government, and on long-time city residents who owned the Better Brite company.

All three Journal staff members whom we interviewed, for example, repeatedly asserted that the Better Brite issue, while a legitimate story, was not an important issue in De Pere. The residents of De Pere, they said, were largely indifferent to the sites. That indifference was understandable, they noted, because the sites pose no risk to the community at large. Officials have pronounced the contamination harmless, and city residents "have no reason to doubt what (officials) tell us."

The publisher and editor of the journal also recalled the former Better Brite owners favorably. The family was active in the local chamber of commerce and would give generously to civic endeavors, they noted. Better Brite was a good, well-run company, they said, whose owners knew nothing about pollution at the time.

The bottom line for the De Pere Journal, it seemed, was to attend to the news dimensions of the Better Brite issue when they occurred but to define the larger story as a success story, as a tale about a relatively benign environmental problem that is being solved by the folks in charge.

An unexpected social structural variable

Another community-level variable surfaced in this study that we had not anticipated. To a large extent, these three Superfund sites were interpreted by journalists within the particular social contexts extant in the communities at hand. That is, journalists gave meaning to these sites by giving them a context unique to the particular community in which the site resided. We will offer two examples:

National Presto: Recall that the unincorporated town of Hallie decided to resolve its water problem by building its own municipal water system, thus abandoning the private, contaminated wells upon which residents had historically depended. Driving that very expensive decision was a complex political relationship among Chippewa Falls, Eau Claire and Hallie. Both cities coveted pieces of Hallie and annexed when they had an opportunity. Hallie asserted its independence fiercely. The years-long "solution" frame, thus, was immediately couched by local journalists as a search for a solution within a territorial social context. Janean Marti, Chippewa Falls bureau chief for the Eau Claire Leader-Telegram, for example, characterized the National Presto Superfund story as a tale about "a township trying to preserve its identity." Another reporter, Bill Gharrity of the Eau Claire Leader-Telegram, responded similarly that a large component of the story dealt with "turf battles."

Sheboygan River and Harbor: Recall that PCBs rendered fish inedible in parts of the Sheboygan River and harbor. From the time that the contamination was identified in the 1970s, several factors worked to reconstruct that information as an economic--not a health--problem. Among them:

•Sheboygan Harbor is classified by the Wisconsin Department of Transportation as a diversified cargo port that must be dredged periodically to remain navigable. The presence of contaminated sediments halted dredging in the 1980s.

•Sheboygan Harbor has periodic runs of Great Lake trout and salmon, making sport fishing a nearly year-round enterprise. In fact, says former Sheboygan Press outdoor reporter Kurt Mueller, Sheboygan has long considered itself "the capital of big-lake sport fishing." The state typically has stocked coho and chinook salmon and rainbow trout in the fall and spring within Sheboygan harbor. But stocking ceased with the discovery of PCB-laden sediments.

•The area is also a lively commercial fishery. Offshore waters of Lake Michigan provide a spawning area for whitefish, and the Sheboygan Harbor provides a nursery for these fish. Commercial fishing for both whitefish and perch takes place just outside the harbor.

•The Sheboygan community has begun constructing a marina in part of the harbor. Efforts in 1986 to dredge the area were rebuffed because the sediments might be contaminated. More recently, the city was able to persuade authorities that the part of the harbor at issue was not seriously contaminated, and work got under way.

The heavy emphasis on waterways as economic entities is operationalized in a particularly interesting way by the Sheboygan Press. That newspaper maintains a full-time outdoor reporter--not an environmental reporter--who is responsible for environmental topics such as the Superfund site. The difference between an outdoor and an environmental reporter can sometimes be subtle, but one common delineation is that the outdoor writer focuses more on uses of the environment--recreational outdoor activities such as hunting, fishing, boating, for example--than on describing and understanding the environment and its problems. An outdoor reporter, we contend, buys more readily into the argument that nature is at its most valuable when it is being used by humans. Thus, such a journalist will be more appealing to economic power structures because he or she is more likely to define environmental issues in economic terms.

The goodness of fit between the outdoor writer and the Sheboygan community was illustrated at one point when the Press' longtime outdoor reporter, Kurt Mueller, resigned. According to the current outdoor reporter, Barry Ginter, the Press initially considered dropping the beat. But members of the numerous outdoor and conservation organizations in the area protested, and the beat was retained.

In Conclusion

What factors account for the ways in which these Wisconsin newspapers framed coverage of the Superfund sites in these three case studies? We mention four classes of predictors, saving the most important one for last.

•The process by which a Superfund site is diagnosed and ultimately fixed drove story frames to some extent. Most bureaucratically defined processes have a structure. Scholars such as Fishman argue that journalists "see events by using the same phase structures that beat agency officials use to formulate their own and others' activities as events" (Fishman, 1982, p. 224). That is, reporters adopt the frames of reference of the bureaucracies that they cover; a dimension of an issue will be deemed newsworthy because officials have defined that piece of the process as important.

Thus, media coverage across the life span of a Superfund site tended to emphasize points of the process that had been established, a priori, as important by U.S. EPA and state agencies. Officials would reinforce these points by staging hearings and sending out press releases. Newspaper audiences, thus, would learn about the results of remedial investigations, about evaluations of health risks, about the filing of law suits. But this controller of story frames renders the bulk of the Superfund siting and remediation process invisible to the public.

•Sources were able to exercise substantial control over story frames. Related to the first class of predictors is the finding that sources of all kinds were able to drive story themes. Journalists are highly dependent on sources for information, yet they are counseled by the occupation to exercise some skepticism, to question the validity of information. We found little of that skepticism in these case studies. Instead, the journalists we interviewed regarded their Superfund sources as reasonable, responsible and accurate. That contributed to the ability of sources to play a major role in establishing story frames.

•Occupational norms and resources influence story frames. As have many other scholars, we found that news making practices, grounded firmly in occupational and organizational norms, influenced the ways in which journalists interpreted Superfund stories over time. Any given dimension of a Superfund site became news only when it coincided with the interpretive framework provided by the occupation.

One of the major features of this interpretive framework was the incessant hunt for events on the part of reporters in all three case studies. Events are the principal diet of a journalist, and in this case they accounted for the overwhelming majority of stories written about any one site. Journalists acted when someone held a hearing, when an irate citizen complained about the pace of cleanup at a meeting, when a governmental body made a decision, when a lawyer filed a lawsuit.

One might argue that attention to such things is no better or worse than randomly picking any subset of occurrences to cover within the lengthy confines of Superfund remediation. But such an event orientation does limit journalistic frames in two ways. For one, it allows sources to control the process and the frames, something discussed briefly above. For another, it absolves journalists from attending to the big picture.

Superfund sites are fascinating social phenomena. They represent extremely complex coping strategies that reveal much about a culture's fears, about its priorities, about the state of technology, and about the concerns of prevailing power structures. But for journalists, these lengthy processes seem to loom instead as featureless plains pockmarked by intermittent "newsworthy" events. Such amorphous landscapes are problematic for an occupation that concentrates on representing reality as something concrete that happened today or will happen tomorrow. As they work to negotiate that landscape, newspapers and their reporters make little effort to step back and view the bigger picture. Instead, they concentrate on accurately representing the cross-section of reality that a single event such as a hearing offers up.

•Finally--and most importantly--frames are driven by community structures and by the interpretations championed by the prevailing power structure in town.

We saw two ways in which community structure influenced coverage of local Superfund sites. One was the pattern predicted by Tichenor, Donohue and Olien, in which community structure led media in those settings to play either the role of promoter or watchdog. Newspapers in more homogeneous communities in these case studies were more likely to downplay the seriousness of hazards at the Superfund sites, confine their reporting to coverage of events, and frame the sites as problems that were being handily solved by local authorities. Their coverage reflected effort, in other words, to keep the "controversy" contained within town boundaries and to minimize threats to the prevailing power structure.

Newspapers in more heterogeneous settings, conversely, were far more likely to cover Superfund sites extensively, to relegate offending local industries to "bad guy" status, and to regard the risks inherent in the site as worthy of concern and publicity.

A second way in which community structure acted to influence coverage of these Superfund sites was not anticipated. We found that communities in two of the three case studies seemed to play a major role in establishing the larger framework within which the Superfund site would be discussed. The lengthy and, apparently, contentious relationship among the communities of Eau Claire, Chippewa Falls and the township of Hallie, for example, worked to give meaning to the National Presto site as a territorial issue. Within that interpretive framework, the health hazards present at the site were relevant to the

extent that they lent credence to motives ascribed to the actions of any single community as it "poached" on another.

Similarly, the Sheboygan River and Harbor site quickly became framed as an economic issue for residents of Sheboygan and for the Sheboygan Press. Within that context, PCBs in fish became problems for the sport fishing industry rather than potential hazards to the health of readers. Heavy metals embedded in sediments in the Sheboygan Harbor became roadblocks to dredging rather than risk factors for residents.

In fact, one of the most important messages that came out of these three case studies for us was that, for the mass media, Superfund sites are not environmental risk stories. They are not primarily--or even substantively--stories about risks to health, although Superfund sites were created primarily to signal that condition. Rather, these stories are sagas about solving community problems, sagas whose main story lines come courtesy of the prevailing power structure. Long-running environmental problems, thus, seem to be recast by local mass media as situational morality plays whose plot and denouement depend to a considerable degree on the nature of the community in which the drama unfolds.

References

Donohue, G.A., Olien, C.N., Tichenor, P.J.,1985a. Leader and editor views of the role of press in community development, Journalism Quarterly, 62 (2):367-372.

Donohue, G.A., Olien, C.N., Tichenor, P.J.,1985b, Reporting conflict by pluralism, newspaper type, and ownership, Journalism Quarterly, 62 (3):489-499, 507.

Dunwoody, S., 1979, News-gathering behaviors of specialty reporters: a two-level comparison of mass media decision-making, Newspaper Research Journal, 1 (1):29-39.

Dunwoody, S., 1992, The media and public perceptions of risk: How journalists frame risk stories, in Bromley, D.W. and Segerson, K., eds., The social response to environmental risk, Kluwer, Boston, 75-100.

Dunwoody, S., Rossow, M., 1989, Community pluralism and newspaper coverage of a high-level nuclear waste siting issue, in Grunig, L.A., ed., Environmental activism revisited: the changing nature of communication through organizational public relations, special interest groups and the mass media, The North American Association for Environmental Education, Troy, Ohio, 5-21.

Fishman, M., 1982, News and nonevents: making the visible invisible, in Ettema, J.S., Whitney, D. C., Individuals in mass media organizations: creativity and constraint, Sage, Newbury Park, California, 219-240.

Gitlin, T., 1980, The whole world is watching, University of California Press, Berkeley, California.

Graber, D., 1988, Processing the news: how people tame the information tide, 2nd ed., Longman, New York.

Greenberg, M.R., Sachsman, D.B., Sandman, P.M., Salomone, K.L., 1989, Risk, drama and geography in coverage of environmental risk by network TV, Journalism Quarterly, 66 (2): 267-276.

McLeod, J.M., Blumler, J.G., 1987, The macrosocial level of communication science, in Berger, C.R., Chaffee, S.H., eds., Handbook of communication science, Sage, Newbury Park, California, 271-322.

Mendelsohn, H., 1990, Mind, affect, and action: construction theory and the media effects dialectic, in Kraus, S., ed., Mass communication and political information processing, Erlbaum, Hilldale, New Jersey, 37-45.

Olien, C. N., Donohue, G.A., Tichenor, P.J., 1968, The community editor's power and the reporting of conflict, Journalism Quarterly, 45 (2):243-252.

Olien, C.N., Donohue, G.A., Tichenor, P.J., 1978, Community structure and media use, Journalism Quarterly, 55 (3):445-455.

Olien, C. N., Tichenor, P.J., Donohue, G.A., 1989, Media coverage and social movements, in Salmon, C.T., ed., Information campaigns: balancing social values and social change, Sage, Newbury Park, California, 139-163.

Phillips, E.B., 1977, Approaches to objectivity: journalistic vs. social science perspectives, in Hirsch, P.M., Miller, P.V., Kline, F.G., eds., Strategies for communication research, Sage, Newbury Park, California, 63-77.

Rachlin, A., 1988, News as hegemonic reality: American political culture and the framing of news accounts, Praeger, New York.

Rubin, D.M., 1980, Science writers never had a chance in the Three Mile Island nuclear debacle, Newsletter of the National Association of Science Writers, 28: 1-2, 10-13.

Ryan, M., Dunwoody, S., Tankard, J., 1991, Risk information for public consumption: print media coverage of two risky situations, Health Education Quarterly, 18 (3): 375-390.

Sandman, P.M., Sachsman, D.B., Greenberg, M.R., Gochfeld, M., 1987, Environmental risk and the press, Transaction Books, New Brunswick, New Jersey.

Singer, E., 1990, A question of accuracy: how journalists and scientists report research on hazards, Journal of Communication, 40 (4): 102-116.

Stocking, S.H., Gross, P.H., 1989, How do journalists think?, ERIC Clearinghouse on Reading and Communication Skills, Bloomington, Indiana.

Tankard J.W. Jr., Hendrickson, L., Silberman, J., Bliss, K., Ghanem, S., 1991, Media frames: approaches to conceptualization and measurement, presented to the Association for Education in Journalism and Mass Communication annual meeting, Boston, Massachusetts, August.

Tichenor, P.J., Donohue, G.A., Olien, C.N., 1980, Community conflict and the press, Sage, Newbury Park, California.

van Dijk, T.A., 1988, News as discourse, Erlbaum, Hillsdale, New Jersey.

Weiss, C.H., Singer, E., 1988, Reporting social science in the national media, Russell Sage Foundation, New York.

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Understanding Audience Reactions To AIDS Messages:

An Adaptation Of The Meaning-Based Model

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Understanding Audience Reactions To AIDS Messages: An Adaptation Of The Meaning-Based Model

Abstract

This study attempts to approach audience reactions to AIDS messages from the sense-making standpoint of the audience member. The viewer's perspective is of primary interest to the study. The study provides a rationale for using this "alternate approach" to the more frequently used information-processing perspective, and illustrates an adaptation of the meaning-based model in the domain of public health communication.

Over the past decade, much criticism has been directed at consumer research as being too one-sided, addressing the consumer as a rational, "machine-like" object rather than as a "human being" (Holbrook, 1986). Moreover, consumer research has been accused of treating consumers as "solitary subjects, without identities, who react to ads through linear stages or limited persuasion routes" (Mick & Buhl, 1992; p.317), and as seeing the consumer as "information-centered" (McCracken, 1987). The criticism may also be applied to the domain of social marketing.

As McCracken (1987) has rightly pointed out, the information-based model has served and continues to serve well. However, this study illustrates an alternate approach to understanding consumers' responses to public service announcement messages (PSA's). This alternate approach looks at the receiver of the message from a meaning-based perspective (McCracken, 1987; Mick & Buhl, 1992). Constructing an understanding of receiver response involves examination of such responses in relation to the receiver's life experience and meaning spheres.

A Case For Studying Meanings In The Consumption Experience

We start with a brief review of the literature that looks at concepts such as emotions, feelings, affect, and their role in the creation of meanings for the consumer. This review also touches upon some basic concepts of symbolic interpretive interactionism and existential phenomenology, as employed by Mick & Buhl (1992).

Holbrook's (1986) approach to the study of the consumption experience extends beyond what he terms the Cognition-Affect-Behavior paradigm to accommodate the phenomenological experiences in the consumption process. He holds that brand choice constitutes only a minor part of the consumption experience. He therefore advocates a shift from "explanation of brand choice" to a "study of the total consumption experience." He offers an alternate paradigm that includes "emotion" and "feelings" -- "subjective, phenomenological, experiential components" in the emotional system.

The existential-phenomenological approach addresses more completely the concept of

"life-world." It focuses on context and favors "the study of the totality of human-being-in-the-world" and on an individual's world of "lived experience" rather than the world of objective description (Thompson, Locander, & Pollio, 1989). Thus, a meaning-based approach to studying consumers' responses to advertising would contextualize consumers' responses to ads within whole life-experiences.

Mick & Buhl (1992) used a biography approach to understanding whole life-experiences of consumers. For their study of how three Danish brothers responded to advertisements, Mick and Buhl employed strains from existential phenomenology, humanistic psychology, and analytical psychology to construct a meaning-based model. Additionally, they incorporated concepts from theories of text reception and aesthetics, semiotics and anthropology: that meanings of fictional texts (in this case, ads) are "actualized" by the reader/viewer, and that advertising itself is a "quasi-fictional, culturally constituted system of symbols" (Mick & Buhl, 1992; p. 318). Meaning-construction, in their study, emerged from an examination of the reader's (respondent's) biography as well as the reader's responses to selected print ads.

The principal concepts employed by Mick & Buhl (1992) are life themes and life projects[1]. *Life themes* refer to how an individual organizes his or her life. They emerge from sociocultural backgrounds and transformational experiences occurring in the early stages of the individual's life. The individual interprets an advertisement, and draws meaning from the advertisement, in keeping with his or her dominant life themes. The meaning of the ad is not seen as being inherent in the text.

Life projects refer to "extended sets of personally relevant action" p. (319). The selection and organization of such projects are manifestations of the individual's dominant life themes. Life projects -- apparent in culturally defined spheres at the national, community, family, and private self levels -- involve meanings associated with each of these levels.

In their study, for example, Mick & Buhl identified "being free versus not being free" as one of the life themes of a respondent; the respondent's life project in the *national sphere* was indicated by his feelings of not being able to consume a brand of beer because it was

uncharacteristic of his countrymen to do so. The same respondent, in reacting to an ad for a suit, felt that he (now) had the freedom to "look nice," in keeping with the norms of his present social group -- an instance of the *community sphere*, in relation to the life theme of "being free versus not being free." Another respondent's identifiable life project in the *family sphere*, under the life theme of "defining self versus not defining self" included his mother drinking a particular brand of mineral water, and his not wanting to be like his mother. A third respondent expressed dislike of the beer ad as he found it "intellectual" and "pushy," and preferred to decide on a brand for himself -- this would serve as an example for a life project in the private self sphere; the life theme associated with this sphere was identified as "being true versus being false."

The "America Responds To AIDS" Campaign -- An Illustration With Public Service Announcements (PSA's)

Public Service Announcements from the recent America Responds To AIDS (ARTA) campaign, developed and sponsored by the Centers for Disease Control, were used to test the meaning-based model in public health communication. The campaign was intended for a five-year period (1988-92). The present pilot study examines reactions to two sets of television PSA's. Selected ads included five from the parent-youth campaign, and five from the college-age group/young adult campaign. The PSA's were intended to persuade the viewer to call an 800 number for (a) information on how to talk to young teens about AIDS and the importance of safe sex (parent-youth campaign), and (b) information on protection against AIDS (college/young adult campaign).

Woods, Davis, and Westover (1991), in their description of the development, process, and content of the ARTA campaign, stated that the campaign was based primarily on the Theory of Reasoned Action. The Theory of Reasoned Action (Ajzen & Fishbein, 1980) posits that "humans are reasonable animals...who systematically process information" available to them and use this processed information to make purchase decisions (Fishbein and Middlestadt,1989). If underlying cognitive structures are changed, it is expected/predicted that behaviors will change. Components that constitute this theory include (a) the person's belief that the behavior would lead

to certain outcomes; the evaluation of these outcomes would contribute to attitude toward the behavior; (b) the person's belief that the group members think the person should or should not perform the behavior, and the individual's motivation to comply leads to subjective norms. Together, these two components impact the intention to adopt a behavior, which finally culminates (most often) in actual adoption of behavior (Fishbein & Middlestadt, 1989).

Underlying an individual's intention to adopt a behavior is the notion of assigning "weights" to outcomes of adopting that behavior. Congruent with the Theory of Reasoned Action, if the parent-youth campaign were used as an example, talking to one's child about AIDS could lead to the following outcomes:

a. Achievement of a step toward ensuring child's health

b. Satisfaction resulting from having performed (a).

c. Sense of fulfilling responsibility as parent.

The assumption of the theory is that when these outcomes would be considered and weighted against possible negative outcomes, an attitude toward the behavior would be developed.

The second component of the theory -- perceived group members' pressure to make parents comply -- involves a weighted average of the following:

a. approval of friends for having taken a "step in the right direction" toward educating the child; responsible parenting.

b. Conversely, alienation because of having been "too open" with children "still too young" for such talks.

Based on these weighted considerations, the intention to adopt the behavior, and finally the behavior itself, would be predicted.

The Theory of Reasoned Action maps a logical or rational route to predicting behavior. The meaning-based model concerns itself with understanding the viewer's emotions and meaning transactions with the message. Why would the meaning-based model be useful in this context? For one, viewing these PSA's "through the consumer's eyes" would offer a more extensive and holistic understanding of the receiver's reactions to preventive health messages. For another, this

method could aid in refining and if necessary, redefining target audiences based on such understanding. As Holbrook and Hirschman (1982) have pointed out, neglected "consumption phenomena" could emerge from a more experiential and phenomenological study of viewer reactions to AIDS messages. Additional insight as to why certain target audiences may not respond to the message could also be gained from the meaning-based approach.

A Pilot Study

The method adopted by Mick & Buhl (1992) was used to examine AIDS PSA experiences of selected respondents. It may be noted here that this study is not an attempt to replicate Mick and Buhl's entire meaning-based model; rather, it is an adaptation of the method originally employed to create this model, in the context of social marketing and public health.

Television PSA's of the ARTA campaign for 1988-92 were obtained from the State Department of Health. Two sets of five PSA's each were selected, one set from the parent-youth campaign, and one from the college-age/young adults campaign. All PSA's carried the basic call for action to contact an 800 number for information. viewers of the parent-youth set of ads were invited to call for information on how to approach the topic of safe sex and AIDS with tweens and young teens. Viewers of the young adult set of ads were invited to call for information about protection and safe sex.

Method

This study collected both in-depth interviews and life story interviews from the respondents. In-depth interviews (also discussed as intensive interviewing by Brenner, 1985) were used with a view to becoming "intimate" with the viewer's experiences with the PSA's . Respondents were exposed to the PSAs, one at a time, and were then asked to report their experiences with each ad. The interview was semi-structured (partly dictated by questions that emerged from the attributes discussed in an earlier section, and partly determined by the individual's responses) and non-directive (Brenner, 1985; Mick & Buhl, 1992).

The same respondents went through a second interview, designed to elicit individual life

stories (Tagg, 1985; Mick & Buhl, 1992). Again, this was a semi-structured interview. The second interview was biographical, designed to elicit the respondent's experiences, development, and memories in the span of his/her lifetime to date. Details of both interviews are given in the "Data Collection" section.

"Trustworthiness Of Findings"

Wallendorf and Belk (1989) offer a set of criteria that serve as alternatives to quantitative tests of validity and reliability. The criteria include:

(a) Credibility -- "believable representations" of the meanings studied. Two of Wallendorf and Belk's methods were used to establish credibility. One, consulting peers -- two peers (graduate students) and a senior researcher (professor) were present for periodic discussion, critique, and adjustment of interpreting data at various stages. Two, member checks -- each respondent was asked if the interpretation was accurate.

(b) Confirmability -- the ability to "trace a researcher's construction of an interpretation" with the help of data and other records. All the interviews for this study were tape-recorded; extensive (but not verbatim) transcripts of the interview, and interpretations in the various stages (in particular, debriefings by peers) were maintained.

(c) Integrity assessment -- the extent to which interpretations are relatively free of the subject's misinformation. One useful technique to establish integrity, as recommended by Wallendorf and Belk (1989) refers to self-revelation of the interviewer, as opposed to the distanced approach. This technique, which they include as part of "good interviewing technique," was used to establish rapport with subjects in the present study. The difference in nationality of the researcher was integrated into some of the self-revelation that occurred in the interview, such as comparisons of teens in the United States versus teens in the researcher's home country. A second indicator of integrity, safeguarding informant identity, was also employed for this study -- subjects were informed that their names would be changed and that their identity would be protected.

The criteria of transferability (applicability of other findings in other contexts, for other subjects) and dependability (issue of replication) were not fulfilled since this study is exploratory in nature.

More frequent and extensive use of the meaning-based approach in this and other health domains would be required to be able to address these two criteria.

Respondents

A convenience sample of four respondents -- two mothers and two undergraduate college students -- was selected for this pilot study. The sample was selected to demonstrate the value of the meaning-based approach for studying a sensitive issue in public health communication. Resources will be sought to support a larger sample.

Stimuli

Set 1 -- consisted of five PSA's for college students/young adults, the first of which served as a "test ad" to check whether respondents understood the procedure and the nature of responses sought.

Test ad -- portrayed people (young, professional) from all walks of life talking about, and showing awareness and concern about AIDS, and in one instance, even sharing the (fact of the) HIV positive status with a group of people.

Ad 2 -- dealt with a young woman (about nineteen) relating her HIV positive status in voice-over fashion. The scene depicted a small town.

Ad 3 -- showed a tranquil home scene (laundry fluttering in the breeze); the voice-over was female, African-American, relating how she contracted the HIV virus from her husband.

Ad 4 -- A college student on campus refuses to come to terms with the now ubiquitous talk of AIDS and complains about how tiresome it is, and how she will not be affected by it since she is careful.

Ad 5 -- opens with a young woman and a young man kissing, seated on the sofa. The voice (and face) on television reappear despite their efforts to "zap" the ad, and brings up the danger of not talking to the partner about AIDS.

At the end of each PSA, an 800 number is provided for viewers to call for information about AIDS.

Set 2 -- consisted of five PSA's for parents of tweens and young teens, the first of which served as

a "test ad" to ascertain that respondents understood the procedure and the nature of responses sought.

Test ad -- depicted a father trying to have a conversation about sex and AIDS with his (around) 14-year-old son, not being too successful until he mentions "AIDS;" then the son pays attention.

Ad 2 -- portrayed a mother trying to talk to her (around) 12 year-old daughter about love, sharing, sex, and family life. The daughter uses the television remote control to tune her mother out but rewinds when her mother reaches the subject of AIDS.

Ad 3 -- An African-American mother relates how she is particular about talking to her children (son about 11 years old, daughter about six) about AIDS soon.

Ad 4 -- Two sisters are having a conversation in a restaurant, one about how she anticipates the difficult task of having to talk with her 13-year-old son about AIDS, and the other urging her to do so soon, since the father is no longer around, and also since the son now has a "steady" girlfriend.

Ad 5 -- A father observes his daughter -- now "all grown up" (notices her talking often to one particular boy; notices her attention to personal appearance) and attempts to talk to her about the danger of AIDS.

At the end of each PSA, an 800 number is provided for viewers to call for information about how to approach the subject of AIDS and sex, to have that talk with their children.

Data Collection

Data were collected in two stages. In stage one, the respondent was asked about each PSA that he/she viewed. Broad questions directing the general flow of responses were derived from the earlier described "attributes" for the theory of reasoned action. Each session began with the question of what kind of feelings the respondent had about a particular ad. For the students, subsequent questions included thoughts and feelings about perceived relationships of the people concerned, embarrassment in talking to the partner, acceptability of talking about the problem openly (if one is HIV positive), whether the respondent had friends like the characters shown in the ad and what their responses might be to the ad, and whether the respondent would call the

800 number after seeing the ad (in a non-laboratory, home setting).

Parent respondents were asked about their feelings as they watched the ad, the perceived parent-child relationship in the ad, their feelings about talking to their own children after viewing the ad, how they felt about calling the 800 number after viewing the ad (in a home setting), and how they might feel after having had that talk with their child.

In stage two of the data collection, the life-story interview was conducted. Again, there were no rigidly set questions; broad questions to keep the interview from being too free-flowing included -- information on family, relationships with family members, early incidents and episodes, developmental history in general, recreational and avocational activities, and opinions and beliefs in general (Denzin, 1978; p. 235).

On an average, a two-week interval was allowed between the in-depth interview with ads and the life-story interview, for each respondent. Interviews averaged to two hours (approximately) per session for each subject; each subject was interviewed for a total of about three and a half to four hours.

Data Analysis And Checks

Data consisted mainly of interview transcripts and notes. They were discussed with peers at various stages of compilation with peers; the data were used to identify life themes (from the life story data) and life projects (in relation to responses to the PSA's). A sample of the themes and projects are presented in table form in the Appendix; a detailed discussion of the data follows. It may be noted here that life projects at the "national" level, as used by Mick and Buhl (1992) were not identified for all respondents; in some cases, projects were classified under a "broad/societal level."

The final reports (concise summary) and corresponding tables were presented to the respective subjects; suggestions for changes were invited. In two instances, corrections were suggested; corrections involved adding "male" to a racial descriptor, and the change of a place of work from "departmental store" to "retail store." All other data were found to be acceptable.

Given below are instances of interpretation by respondent. Respondents were given the

choice of selecting preferred fictitious names; for those who did not, the researcher assigned names.

Life Themes And Life Projects By Respondent

Ryan

Ryan is a 21-year-old undergraduate student at a midwestern university. He is of Filipino origin. Originally from a large metropolis in the Southwestern part of the United States, he identifies strongly with urban cultural outlets ("involved in a play;" "involved with theater;" "I go dancing a lot," "I go to clubs a lot...") He prides himself on being "willing to learn" and generally, "being well-informed." He expressed a desire to have a career in a highly "visible" industry such as advertising ("I like to work in a prestigious advertising agency") or in the film industry. He saw advertising and the theater as serving as arenas for expressions of his creativity. He emphasized his natural tendency to be the "center of attention." Currently, Ryan works in the telephone survey section at the School of Public Health; he also holds a job at a video store. He enjoys both jobs as they give him an opportunity to talk/meet with people.

Ryan's childhood included a strict Filipino, upper-middle-class upbringing. The oldest of three children, he believes that he "made things easier" for his brother and sister. His parents stressed good education (particularly in the sciences and engineering). Ryan fought what he perceived to be non-American, fully traditional Filipino impositions on his life (language, food, saw parents' social life as being limited to Filipino circles, "I had Filipino baby-sitters"). He called himself a "rebel" and as "breaking (his) parents into bringing (him) up as an American." His decision to come to the Midwest, away from home, was dictated mainly by his desire to get away from the "controlling figures" of his life.

Ryan's life-story interview data suggests that he is an independent, artistic, social/sociable personality, who is conscious of maintaining his independence (proving that he has control over his life by living alone, away from home) as well as a certain social image (which encompasses his need for attention, projecting a "well-informed" outlook, numerous friends, and an active social

life). His life themes seem to be (a) the establishment of his own independence and "American" identity, and (b) giving free rein to his image-consciousness, creativity, and extraversion.

Ryan viewed the PSA's from Set 1. An illustration of Ryan's responses to some ads, in relation to the primary, identified life themes, amplifies the information given in Table 1 (refer appendix). With reference to ad 2 (small town woman of about 19 -- HIV positive), his image-consciousness and his need to be well-informed came to the fore, on a broad societal level, in his reactions to the small-town scenario -- "I'd kill myself before living in a town that small." "She could have prevented it if they had used condoms...not only to worry about AIDS...but STD's or pregnancy." Speculating on the small-town situation, and the lack of the openness that he perceived as being characteristic of a city, he added: "Maybe...it's embarrassing to be caught buying condoms. That's why they avoid it; maybe they're just...foolish...people who're having a fun time...and they don't really consider what they are risking...I think it's the ignorance...and maybe the non-existence of...sex-education."

Ryan's responses to this ad, and the third (African-American woman -- HIV positive) and fourth (campus) ads seemed to indicate, in his opinion, that both the characters who had contracted the HIV virus as well as the woman who seemed intensely irritated by the AIDS talk surrounding her, should take the responsibility of informing themselves, and take the responsibility of protecting themselves, instead of "blaming it on her boyfriend...blaming it on her husband...." These responses seem indicative of his life theme of independence, again, at the broad societal level. He commented on how this "blaming" of the male created a negative image of men in general. He expressed his liking for the fact that the portrayal of small towns and women went against stereotypical views of AIDS as a big-city, "gay disease." In the context of talking about ad 5 (couple on sofa), Ryan stressed the need for each individual to take precaution or protection measures -- "You don't have to find out about your partner's status, you know, as long as you're safe" (he equated "unsafe" with "no protection"). He acknowledged that he would find it embarrassing to bring the issue up in conversation with his partner, especially at the stage the couple on the sofa (ad 5) had reached -- "If it's a one-night stand, I think you should always have

a condom with you. I do." This last response demonstrates the two identified life themes (independence, image-consciousness) in the private-self sphere.

Ryan indicated that he was unlikely to call the 800 number for any of the ads, mainly on the grounds that he was better informed and that he would not resort to "unsafe behavior" that would expose him to any danger. Both life themes seem to be apparent in his response to calling the 800 number -- protecting himself at every encounter ensured his independence; the implied frequency of such encounters (he mentioned that he usually carried a condom in his school bag) emphasized his active social life and related image-consciousness.

Jennifer

Jennifer is 28, an undergraduate student at a midwestern university. She is of African-American origin. Involved in her studies and school work, Jennifer tended to bring much of her school experiences into her life story. She is a triple major in Journalism, Women's Studies, and English, and is now at the end of a ten-year program, ready to graduate at the end of the academic year. Jennifer is very conscious of the importance of maintaining an open mind and being "non-judgmental." She is also sensitive to the issues of race, gender, and stereotypes; she expressed that this sensitivity had been heightened due to her educational background/major areas. She has a few friends, but no really "close" friends. She attributed having too few friends to the somewhat itinerant nature of her childhood ("we were always moving," "I was afraid I'd lose them, or we'd move, or they'd move" -- referring to friends). She described herself as being highly organized ("I have a list of things to do for the week") and work-conscious. She gave vent to her teenage curiosity and experimented with apartment-living, boyfriends and an active social life, but is now "celibate" and lives with her parents. She works at a fast-food restaurant ("I like to have my own money"), and though she mentioned it several times, she appeared to be non-committal about her job. Her internships with various television stations, in the past, seemed to compare neither favorably nor unfavorably with her current job.

Jennifer is the older of two children. She does not see herself as being close to her brother since he is considerably younger than she is. She described her father as a workaholic, highly

successful ("We were always moving; my father wanted promotions"), and her mother as a homemaker. She emphasized that her parents always insisted on getting past "prejudices," the fact that she often was the only black person in many of the schools she attended in the East as well as in the Midwest, and that she was the object of a lot of teasing in her younger years. Her parents have always regarded education as being very important. She is of the opinion that education widened her world, then narrowed her options, but as yet, she is unsure about the kind of job she would like. She emphasized that she would like to have her own source of income after marriage.

Jennifer's life story depicts a picture of an articulate, mature woman with strong views on gender, race ("people need to be open-minded"), and stereotypes, and a person who values education. She does not have defined (career) plans about her future and is considering going to graduate school. Her life themes seem to be (a) maintaining an open mind and getting past the prejudices and stereotypes she encounters, and (b) indecisiveness, generally, and attempts to give a shape to her future.

Jennifer was exposed to the PSA's from Set 1. Most apparent from Jennifer's responses to the PSA's was her life theme of open-mindedness. Her life project, at the national/broad societal level, in relation to this life theme, involved pleasure in finding certain stereotypical views that seemed to be dispelled in the ads, or conversely, displeasure at exclusion of certain groups of people. She critiqued the test ad (young people from all walks of life) for not portraying members of other races -- "I noticed there were no people of color." When asked how an African-American friend would react to such an ad, she was unable to respond, as she was merely acquainted with two co-workers on the job, and did not have a close friend (at present) of this race. She described one of these two co-workers (male) as "homophobic," and as "closing his mind" to this and the other AIDS PSA's in the set. The "breaking (of) stereotypes" in ads 2 and 3 (where the characters were HIV-positive women) also appealed to Jennifer -- again an indication of open-mindedness at the broad/societal level. She critiqued the closed-mindedness of the college student in ad 4, and mentioned that informing people of meetings, approaching students on

campus malls, appealed more to her.

Another illustration of Jennifer's life theme of "open-mindedness" at the societal level pertains to ad 3, where she expressed her liking for the portrayal of a "woman of color." She revealed that it made her think of "The Color Purple," of how the men failed, and how the women emerged as stronger of the two sexes. In talking about her brother, his youth, and his lack of interest in education (refer Table 2 of appendix), she implied that maturity, along with education, was needed to want to find out about AIDS. Again, with reference to the last PSA, she expressed that she liked the "black man catching them (Caucasian young adults) at the beginning stages; ...liked black man taking on an authoritative role."

As mentioned in Table 2, Jennifer's second life theme of indecision was most apparent (while responding to the test ad and ad 2) in her indecisiveness about calling the 800 # she had taken down in response to other AIDS PSA's she had seen prior to the interview.

Jennifer said that she was most likely to call the 800 number after viewing ad 3 (African-American woman -- HIV positive) since the breaking of stereotypes (race and gender) appealed to her the most. Jennifer's predominant life theme of open-mindedness was most apparent from this response. In contrast to this response, she expessed irritation about the campus ad ("she is taking a very narrow-minded approach"), and mentioned that in this context, she preferred spreading word about a meeting for AIDS education to calling the 800 number.

Judy

Judy is in her mid-thirties, the tenth of twelve children. Though fairly well-traveled within the United States, she decided to settle down in the Midwest, close to her family. Judy has an eight-year-old son, a bi-racial child (she is Caucasian), and is very emphatic about "maintaining open lines of communication with your child." She enjoys parenting and has made certain that she has maintained open communication with her son David on several issues. She is of the opinion that the mother-son closeness in her family was established largely due to the father's absence (she was a single parent until she married David's father, recently).

Judy remembered many details of her childhood. After high-school, she decided to move

east, travel, and explore. Her experience of hitch-hiking was an outcome of "following (her) inner instincts and spirit," something that she hopes to "get in touch with" and take with her to a job in the future (she is presently unemployed) -- "I want to bring that kind of spirit back into work." She has worked at several jobs and has discovered within her a "creative" side as well as a "business/entrepreneurial" side. Writing satisfied the former need, and a job at a mid-sized discount/retail store provided her with the opportunity to demonstrate her business/entrepreneurial acumen ("I advanced rapidly through the ranks...[people] at the supervisory level began to feel threatened," "It [her entrepreneurial quality] did me in"). She expressed a desire to merge these two qualities in her in her future employment. She is particular that organizations turn "human," that people be allowed "to be who they are," and that she have work surroundings that "fit" with her personality.

Judy tends to integrate her hobbies into work; her avocational activities include cross-country skiing and skating. At present, she is expecting her second child; she enjoys watching movies at home with David. She sees herself as a spiritual person and abhors ("I can't deal with") the "dogma of religious organizations." Judy's life themes seem to be (a) open-mindedness (encompassing creativity, willingness to experiment evident at a younger age, insistence on open lines of communication), and (b) in contrast to the first theme, low tolerance (evidenced by consciousness and insistence upon work surroundings and situation that find a good "fit" with her personality -- "I have grown less tolerant...," "organizations aren't very human...it really bothers me;" "Call a spade a spade" -- talked about honesty in the instance of losing her job at the discount-retail store).

Judy watched the PSA's in Set 2. Her reception of ad 3 (the African-American family) as being the "best" -- "I was a little teary inside" -- indicated her life theme of "open-mindedness" at in the national sphere. She mentioned in this context, from her personal experience, that "white families" were not as "open and direct" with their children as "black families" were. As Table 3 indicates, with reference to the test ad, she critiqued the father for handling the talk poorly. She mentioned that "instead of grabbing his (son's) leg, touch his leg...build rapport;" this is indicative

of her life theme open-mindedness (establishment of rapport to "open lines of communication" -- a phrase that she used often), within the family sphere. She made similar observations about the mother in ad 2 in that the mother seemed to hug herself and that she did not "sound comfortable with the idea, the topic of sex." In response to these ads, and by drawing parallels to her own situation (where she would have to talk to David in the near future), Judy described how she might possibly go about such a situation -- that she would ask David out for a walk, establish rapport, and introduce the subject conversationally. In keeping with the second life theme identified, she mentioned that she would get to the point ("Personally, I'm irritated when there's a lot of talking), and would assume some knowledge on the part of David (refer Table 3 -- Open-mindedness/Family; also, she mentioned that the topic had already come up during class time, at David's school).

Judy's reactions to the test ad and ad 2 suggest that she would be likely to call the 800 number when her son reaches the "appropriate" age -- this likelihood seems apparent in her description of the motions she would undergo to bring up the topic in a non-threatening way, as part of a "conversation." She expressed that she was most likely to call the 800 number in response to ad 3 (the African-American family). Her reason for doing so seems to emerge from her life theme of open-mindedness. Conversely, she reacted negatively to the final ad (father-daughter conversation) -- "it bugged me" -- the father-daughter relationship in the ad, in her opinion, lacked connectedness -- when asked if she thought a father in a similar situation might be impelled to call the 800 number after watching this ad, she replied, "if they identify him as the father...not likely."

Diane

Diane is in her late thirties, and is a single mother (of eight-and-a-half-year-old Lisa). She sees herself as a strong personality, as a businesswoman who enjoys having full control over her own life (in another instance, she mentioned that she had been born in the "wrong era," that she would have liked to have lived in the pioneer days, staked her claim on new land -- much preferable to "hourly wages"), and as being very conscious of her Finnish origin. She is especially

conscious of maintaining her financial independence -- "I've always worked;" "I don't like to ask for money. It's a power thing. I don't like to give somebody that kind of power over me...." She has traveled fairly extensively (England, Scotland, Mexico, Canada, the western and south western parts of the United States), and classifies travel as a major avocational activity.

Diane expresses that she had a fairly smooth childhood, right through her school years. She is second of four girls in the family, and feels closer to her older sister than to her two (considerably) younger sisters. She obtained her Bachelor's degree in Media Studies recently, marking the end of fifteen years as a part time student. Throughout, she has worked at several jobs; the maximum time spent on a single job involved the running of her own company, which she handed over to her father recently ("My father and I are strong personalities, we are alike." "He is very controlling; basically, he took over the company").

Diane prefers outdoor activities, and is working at inculcating a love for travel and the outdoors in her daughter. She sees herself as having her daughter on a "pretty tight leash;" at the same time, she described her daughter as independent, a strong personality much the same as herself. She feels strongly about cultural heritage and expressed a lack of "connectedness" with other races -- she specified African-American males in this context. She explained that this outlook was a result of being brought up in a Caucasian environment (predominantly Finnish -- all "blue eyes, blonde hair") as well as some unpleasant experiences with black males during her teen years. She acknowledged that her daughter would not be able to respond to differences in color as such, and that she would very much like her daughter to develop an appreciation for her own culture as well. Diane's life themes seem to be (a) entrepreneurship, independence, and control, and (b) fostering a strong connection with her ethnic origins and culture.

Diane was exposed to the PSA's in Set 2. Diane expressed a liking for the test ad (father-son) as well as the last ad (father-daughter) since she perceived the parents in both ads to be "in control of the situation." "The father-son relationship seemed strained....(it's) a hard age...lot of teenager stuff going on." As indicated in Table 4 of the appendix, Diane felt that she should instigate the talk about sex and AIDS, when her daughter turned about 11 or 12. These examples

are indicative of Diane's life theme of control in her life project from the family sphere. She identified best with ad 2, and in this context, mentioned that she had her daughter "on a pretty tight leash," again, an indication of her life theme of control.

In her reaction to the PSA with the African-American family, she mentioned that "black teenage mothers" were abandoned most frequently (referred to national statistics -- none in particular), and stressed the importance of children being "raised with the right value systems." In the context of this ad, she also raised the topic of the United States being a "melting pot," to the extent that it was sometimes impossible to trace one's heritage ("Norwegian, Swedish, German, Italian -- people seem to have a bit of everything in them"), and that she valued her ethnic (Finnish) origins. This response seems indicative of Diane's second life theme of ethnic connections in her life projects in the national sphere.

Diane identified best with ad 2 (mother-daughter conversation) in terms of calling the 800 number. She indicated that the situation mirrored her own, acknowledged that the daughter exhibited "selective hearing" ..."teenager attitude." Diane felt that the conversation was an old one between the two characters; she expressed that she would call the 800 number for information about broaching the subject for the first time (an actual talk as opposed to casual mention) with her daughter. Diane's predominant life theme of control seemed to be apparent in her response to this ad. She stated explicitly that ad 3 (African-American family) would not have impelled her to call the 800 number as she felt "no connection with the ad...too removed" -- this response seems to underscore her life theme of fostering ethnic connections.

Discussion

The findings from this study, if supported by interviews with larger samples, could provide some insight into communication strategies and execution of ads. The ensuing discussion addresses some of these insights. However, the interpretations are made with extreme caution taking into account the limitations, which are also discussed below.

Ryan's responses seem to suggest that there are viewers "out there" who possess information of a higher order; Ryan's responses lead to the conclusion that he believes condom-

use to provide sufficient protection. A revised communication strategy, for a possible audience that could contain people with Ryan's knowledge, would address the need to take other precautions in addition to using a condom. In the case of Jennifer, the PSA's she was exposed were not intended for a sexually non-active person (she mentioned that she was celibate at present); nevertheless, building communication strategies around the increased use of minority members as authority figures and credible sources of information could prove valuable. Judy seemed to identify with PSA's where the parent and child were present and visible on screen. Her inability to connect with final PSA stemmed, in part, from the absence of the parent ("The father's voice sounded like the announcer"). Such a response, coupled with Judy's life theme of open-mindedness (encompassing open lines of communication), provides some information about execution of PSA's meant for parents and youth. A similar conclusion can be reached in the case of Diane. Diane expressed her preference for treating the matter of sex and AIDS in a parent-child conversation as a serious subject; again, this could have implications for the execution of the ad. Further research using this method in the area of health communications is worth pursuing; such research holds potential for substantive findings on segmentation (implied in the case of Ryan), message strategy (as demonstrated in the case of Jennifer), and execution (as it seems to be apparent in the case of both Judy and Diane).

The use of life themes and life projects, as pointed out by Mick and Buhl (1992), is a new phenomenon in the area of consumer research, and possibly in the area of social marketing and public health communication. They see these concepts as aiding in "pars(ing) the phenomena of personality;" life themes are indicative of the coherence of the personality, and life projects; the "evolvement" of personality, in a variety of contexts and over a period of time (p. 333). The experience with an advertising message is viewed in the larger context of the individual's developmental history to date. The extent of detail in responses elicited from the interviews on the ads and life themes and life projects affords a holistic view of audience response to messages. Such richness of response phenomena may elude the more structured survey techniques. As these two researchers have aptly described, the detailed information aids in uncovering "idiosyncractic

meanings" which contribute significantly to meaning construction, and need not be considered as "mere error variance" (p. 333).

In the context of the formative evaluation stage of a health campaign, Salmon and Jason (1991) emphasize the importance for researchers to "understand the 'meanings of behavior one wants to change in the context of the lives of the people one wants to reach' " (p. 641). They add that such understanding requires qualitative methods (they advocate using focus groups in this instance) as opposed to conducting surveys with representative samples, to provide insights into messages that would appeal to defined target audiences. In this context, they also emphasize the importance of symbols and images, seeing them as "critical to the success of social marketing efforts." The utility value of a meaning-based approach is apparent in Salmon and Jason's observation that qualitative research "which involves....unstructured discussion...the collection of generally more impressionistic data" is required "for a thorough understanding of the meaning of results ...[obtained] from quantitative" approaches.

Notes

1. For a detailed discussion and other related citations on life themes and life projects, refer Mick & Buhl, 1992. The full citation is available in the References section. Since this study is not intended as a replication or methodological contribution, this section has limited itself to the basic description/explanation/derivation of these two concepts.

References

Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behavior. Englewood Cliffs, NJ: Prentice-Hall.

Brenner, M. (1985). Intensive interviewing. In M. Brenner, J. Brown, & D. Canter, (Eds.), The research interview: Uses and approaches. New York: Academic Press.

Denzin, N. K. (1978). The life history method. In The research act: A theoretical introduction to sociological methods. Chicago, IL: Aldine Publishing Company.

Fishbein, M. & Middlestadt, S. E. (1989). Using the theory of reasoned action as a framework for understanding and changing AIDS-related behaviors. In V. M. Mays, G. Albee, & S. Schneider (Eds.), Primary prevention of AIDS: psychological approaches. Newbury Park: Sage, 93-108.

Holbrook, M. B. (1986). Emotion in the consumption experience: Toward a new model of the human consumer. In R. A. Peterson, W. D. Hoyer, & W. R. Wilson (Eds.), The role of affect in consumer behavior: Emerging theories and applications. Lexington, MA: Lexington Books.

-- & Hirschman, E. C. (1982). The experiential aspects of consumption: consumer fantasies, feelings, and fun. Journal of Consumer Research, 9 (September), 132-140.

McCracken, G. (1987). Advertising: Meaning or information? In M. Wallendorf & P. Anderson (Eds.), Advances in Consumer Research (Vol. 14, pp. 121-124). UT: Association for Consumer Research.

Mick, D. G., & Buhl, C. (1992). A meaning-based model of advertising experiences. Journal of Consumer Research, 19 (December), 317-338.

Salmon, C. T., & Jason, J. (1991). A system for evaluating the use of media in CDC's national AIDS information and education program. Public Health Reports, 106 (6), 639-644. Journal of the U.S. public Health Service.

Tagg, S. K. (1985). Life story interviews and their interpretation. In M. Brenner, J. Brown, & D.Canter, (Eds.), The research interview: Uses and approaches. New York: Academic Press.

Thompson, C. J., Locander, W. B., & Pollio, H. R. (1989). Putting consumer back into consumer research: The philosophy and method of existential-phenomenology. Journal of Consumer Research, 16 (September), 133-146.

Wallendorf, M., & Belk, R. W. (1989). Assessing trustworthiness in naturalistic consumer research. In E. C. Hirschman (Ed.), Interpretive consumer research (pp. 69-84). UT: Association for Consumer Research.

Woods, D. R., Davis, D., & Westover, B. J. (1991). "America Responds To AIDS": its content, development process, and outcome. Public Health Reports, 106 (6), 616-622. Journal of the U.S. public Health Service.

APPENDIX

Table 1.

Sample of life projects, life themes, and corresponding PSA experiences for Ryan.

	Life themes	
Life projects	Independence	Image-consciousness
National/broad societal	Ads 2,3. Small-town people need more sex-education and information -- "blamed it on her boyfriend...blamed it on her husband...she should have known." Could not identify with ads 2, 3; commented on "ignorance in small towns."	Commented on how he liked the "fast," "yuppie," urban images portrayed in test ad1.
Community	----------	Mentioned that he would not want the identity of the HIV-positive person revealed -- "she'll lose all her friends."
Family	He was glad that it was an 800# (to call for information) -- affords anonymity. If it had been a non-800 #, he talked about how he would have to explain the call, had he lived with his parents, when the bill arrived.	----------
Private Self	----------	Identified with the young couple on the sofa and mentioned how he could see himself in a similar scene. Stated emphatically that he would not call the 800 # and sound completely ignorant or foolish "even over the phone."

Table 2.

Sample of life projects, life themes, and corresponding PSA experiences for Jennifer.

	Life themes	
Life projects	Open-mindedness	Indecisiveness
National/broad societal	Critiqued test ad1 for not portraying "people of color." Pleased to see breaking of stereo-types in ads 2 and 3 (women instead of male drug-users or gays was mentioned).	----------
Community	Reacting to campus ad, mentioned that she would be willing to go up and talk to college-mates on campus about meetings for AIDS that fellow-students could participate in.	----------
Family	Brother not interested in education. Thinks "life can't touch him." Stressed that maturity and education needed to responsibly -- sounded self-deprecating about her teenage experimenting -- in the context of the campus ad (ad 4).	----------
Private Self	Took down 800 # when she had watched the ads earlier, with the intention of calling, even though it was not needed at the moment.	She was unable to explain why she did not call, after all; in another instance, she did not consider herself lazy.

Table 3.

Sample of life projects, life themes, and corresponding PSA experiences for Judy.

	Life themes	
Life projects	Open-mindedness	Low tolerance
National/broad societal	Broadly speaking, did not differentiate between PSA with the African-American family and the others with mainly Caucasian families. In fact, she identified most with this ad.	----------
Family	Mentioned in the context of test ad that she began talking to her son about "where he came from" when he was two years old.	Test ad 2 -- mentioned that father talked too much, son refused to listen. Expressed dislike of "talk...talk too much."
Private Self	Mentioned that the PSA with the African-American family would have induced her to call the 800 # the most. She perceived a "connectedness," "closeness," "open lines of communication" between mother and children.	The last PSA "bugged me." Perfect surroundings, "sterile," no evidence of father-daughter "connectedness."Ad did not affect her at all -- would not have called 800 #.

Table 4.

Sample of life projects, life themes, and corresponding PSA experiences for Diane.

	Life themes	
Life projects	Independence/control/initiative	Ethnic connections
National/broad societal	Critiqued African-American mother for treating subject of sex too lightly, ("kind of winked at her son"), instead of being serious about it. In response to test ad and ad 2 -- Teenagers in America are very independent."	Even though she specified her inability to relate to black males in particular, she expressed categorically that she could not relate to the PSA with the African-American mother and her two children. Mentioned childhood environment as the cause.
Community	Suggested "better way" to talk to children, as part of the response to test ad -- through school districts; parents could go to lectures with children. Then she suggested that the parent instigate the conversation at the right age (for the child).	----------
Family	Liked ad 5. The father struck her as being very much in control of the situation, knowing what to say, etc.	----------
Private Self	Ad 2 (mother-daughter) and ad 4 (mother-son) would impel her to call. She identified strongly with the ads -- as mirroring her own situation. She would like to instigate the conversation -- to know more about how to, she would call.	----------

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Newspapers Provide Functional Information in Controversial Contexts for Consumers to Act

A Study about a Hazardous Waste Incinerator Issue at East Liverpool, Ohio.

Waste Technologies Industries

Submitted to AEJMC

Newspaper Division

by

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The news media are the primary providers of accurate, timely and useful information. This is particularly important today when Americans rely on newspapers for 62 percent of their environmental news.[1] Since a clean environment has become a priority on over 90 percent of American's minds,[2] they rely on newspapers for data they can use.[3] This information usually supplies readers with details they can follow-up and confirm.

If newspapers provide this kind of information, then it should be evident in controversial contexts. This information should be found when newspapers report citizens who are in conflict with supporting a cleaner environment and yet are protesting environmental protection when location of the protection facility disturbs them.

However, Hungerford and Lemert found information that included names, addresses, telephone numbers, times, dates, and locations in

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[1] Arvin W. Murch, "Public Concern for Environmental Pollution," Public Opinion Quarterly, 35:100-106, (Spring 1971).

[2] David B. Sachsman, "Public Relations Influence on Coverage of Environment in San Francisco Area," Journalism Quarterly, 53:54-60 (Spring 1976) and Michael R. Greenberg, David B. Sachsman, Peter M. Sandman and Kandice L. Salomone, "Risk, Drama and Geography in Coverage of Environmental Risk by Network TV," Journalism Quarterly, 66:267 (Summer 1989).

[3] Murch, p. 100.

only nine percent of stories with negative and controversial topics.[4] Lemert, Mitzman, Seither, Cook and Hackett similarly found this information most likely missing in negative and controversial contexts.[5]

In a controversial context, Rossow and Dunwoody found newspapers provided follow-up information in three out of four opportunities.[6] However, there only was enough information for the reader to act immediately in one-fourth of the opportunities.[7] Rossow and Dunwoody defined "immediate" as that information that does not require obtaining further information before follow-up.[8]

Disposal of hazardous waste is a major community issue across America. Federal control is minimal, and the recent Supreme Court decision restricts what states can do. This issue therefore is being confronted at the local level in small communities. These communities typically do not have television stations, and citizens are dependent upon newspaper coverage of the controversy.

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[4] Steven E. Hungerford and James B. Lemert, "Covering the Environment: A New 'Afghanistanism?'," Journalism Quarterly, 50:476 (Autumn 1973).

[5] James B. Lemert, Barry N. Mitzman, Michael A. Seither, Roxana H. Cook and Regina Hackett, "Journalists and Mobilizing Information," Journalism Quarterly, 54:721 (Winter 1977).

[6] Marshel D. Rossow and Sharon Dunwoody, "Inclusion of 'Useful' Detail in Newspaper Coverage of a High-Level Nuclear Waste Siting Controversy," Journalism Quarterly, 68:87, (Spring/Summer 1991).

[7] Rossow and Dunwoody, p. 87.

[8] Rossow and Dunwoody, p. 93.

Consequently, it seemed important to look at newspaper coverage again, to see if newspapers offer follow-up and confirming information.

It appears that protest events would be likely places to look for such information when there is much controversy involved, especially when citizens resist state mandates. It also seems important to know if journalists report more or less of this kind of information after a protest.

This study looks at newspaper coverage of an "incinerator" controversy in one such community, East Liverpool, Ohio. Scenarios such as this are destined to be repeated across the country.

It examines functional information (FI). This information "allows people to act on those attitudes which they might already have."[9] FI offers people information they can follow-up, confirm, and act upon.

To see if FI is provided in controversial contexts, this study examined news stories before and after two particular protest events. While the protest events are different ones, they were held for the same reason: to demonstrate disagreement over the siting of the same plant, the Waste Technologies Hazardous Waste incinerator in East Liverpool, Ohio.

This study identified every entry for FI in the six newspapers that followed the environmental concern over the Waste Technologies industry incinerator issue in East Liverpool, Ohio. This issue not only affects Ohio, but also affects Pennsylvania, and West

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[9] Lemert, et al., p. 721.

Virginia. The study examined news to see if these staged events stimulated an increased number of entries of FI. These kind of events should stimulate this information in news if newspapers provide it in controversial/negative contexts.

It is first hypothesized that the total of all newspapers will increase FI after the incidents. Second, it is hypothesized that local papers will increase the frequency of FI more than non-local papers.

THE WASTE TECHNOLOGIES INDUSTRIES (WTI) INCINERATOR ISSUE

It is this issue that stimulates inquiry into how a specific medium treated FI in news before and after citizens held two prominent protests objecting to the siting of an incinerator.

In 1984, the United States Environmental Protection Agency, and the Ohio Environmental Protection Agency issued permits to WTI to construct a $140 million hazardous waste incinerator in East Liverpool, Ohio.[10] East Liverpool is located in the northeastern part of Ohio where the Ohio River flows out of Pennsylvania and separates Ohio from West Virginia. The incinerator will be the largest in the country, burning 60,000 tons of toxic materials annually in the first rotary kiln.[11] This will double when an identical unit is built.[12]

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[10] "Ohio EPA Says Comments On WTI Plant are Welcome," Wheeling Intelligencer, October 1, 1991.

[11] "Ohio EPA Says,".

[12] "Ohio EPA Says,".

Citizens are frightened for their health. They have experienced or read about "Love Canal," "Three-Mile Island," and "Bhopal, India." While citizens want safeguards such as incinerators, they do not want them "in their backyards." Consequently, "siting" creates controversy.

On October 13, 1991, actor and environmental activist Martin Sheen knelt and prayed after climbing over the fence at WTI. Thirty-two others followed and all 33 were arrested. On the other side of the fence, 700 people protested.

Then on December 17, 1991, local members of Greenpeace, a peaceful protest group, chartered a bus from East Liverpool and traveled to the Ohio EPA office in Columbus to protest and to meet with the director of the Ohio EPA.

Five of the 30 protesters formed a circle, joined hands, and handcuffed themselves together, and to the director's desk. They demanded an immediate halt to progress on the EPA permit, the releasing of files pertaining to the permit to the public, a written commitment to reduce production of toxic substances in the state by 50 percent within five years, and to meet with Ohio EPA Director Donald Schregardus who was not there.

These two protests stimulated inquiry into how some newspapers covered the WTI issue at the time before and after the protest events, and how non-local and local newspapers reported news before and after these incidents.

Consequently, the purpose of this study is to use content analysis to examine the amount of FI provided by newspapers before

and after the incidents/events, and the amount of FI before and after in non-local and local papers.

FI is material that provides identifying information that offers the reader enough data to use to follow-up, and to act if desired.

According to MacDougall and Reid, home-town editors believe that news of all potential subscribers is important. Reporters try to use as many names as they can.[13] Perhaps a more vital reason is the importance of the information.[14]

In addition, larger papers stand in a larger world and are not as concerned with small or unimportant places. The reason is that more people would be affected in a larger place according to Boyer, Wilkins, and Bledsoe, Handberg, Maddox, Lenox and Long. They discuss this by saying that the media prioritize places. "A small catastrophe in an important place is more important than a bigger one in an unimportant place."[15] And the physical and financial realities of covering news lies basically with cultural proximity.[16] In other words, it is inconvenient to cover news in

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[13] Curtis D. MacDougall and Robert D. Reid, Interpretative Reporting, (New York: Macmillan Publishing Company, 1987), p. 113.

[14] MacDougall, Reid, p. 114.

[15] Peter J. Boyer, "Famine in Ethiopia," Washington Journalism Review, (January 1985), pp. 18-21; Lee Wilkins, Shared Vulnerability: The Media and American Perception of the Bhopal Disaster, (New York: Greenwood Press, 1987); Robert L. Bledsoe, Roger Handberg, William S. Maddox, David R. Lenox, and Dennis A. Long, "Foreign Affairs Coverage in Elite and Mass Periodicals," Journalism Quarterly, 59:471-474 (Autumn 1982).

[16] Greenberg, Sachsman, Sandman and Salomone, p. 268.

places located away from where the newspapers are published. This WTI issue is remote for the metropolitan papers, allowing them to escape it. The local papers cannot.

Therefore, non-local papers are not expected to provide more FI than local papers before or after the protest events.

Citizens, in or near East Liverpool where more FI is expected, including editors of the papers, are isolated from major cities in their state. Most likely they realize the importance of becoming visible/heard in order to be recognized by state officials. Consequently, there is expected to be more FI reported in local newspapers.

Specifically, these questions guided the research:

QUESTION 1: Was there a significant change in the frequency of FI in the total of all newspapers that followed the WTI issue after the protest incidents?

QUESTION 2: Was there a significant change in the frequency of FI in non-local newspapers, and was there a significant change in the frequency of FI in local newspapers after the incidents?

Findings are expected to show that the total of all newspapers provided more FI after the incident, and that local newspapers provided more FI for consumers to follow up on after the incidents on October 13 and December 17 than did non-local newspapers.

METHOD

Using content analysis, this study examined FI in all the newspapers before and after the two specific protest events. Frequencies were counted and a Chi square was calculated to see if

there was a significant change in the amount of FI published by these newspapers. Then it grouped the newspapers into non-local and local categories and studied FI in the two categories before and after the same incidents to see if there was a significant difference in the way the non-local and local papers reported FI.

It examined four large newspapers that took an interest in the incinerator issue: The Columbus Dispatch, The Cleveland Plain Dealer, The Intelligencer of Wheeling, West Virginia, and the Pittsburgh Post-Gazette of Pennsylvania. No other large papers published more than one article, and were not examined because of that. In addition, it examined the two local newspapers, the Morning Journal, and the Evening Review.

While non-local and local papers appear to be unequally proportioned, these major newspapers have been chosen to offset the numerous articles published in the local papers. In all four of the major papers there still were fewer articles. To examine only one or two major papers would not have resulted in a representative number of articles.

These newspapers were collapsed into two units, non-local and local, largely because one paper did not publish anything on the subject until after one of the incidents. This left one cell too small to allow for meaningful statistical testing of individual newspapers.

Articles from these newspapers were limited to articles published in October 1991 and December 1991 as each protest was

held at mid-month. Frequencies of FI two weeks before the events and two weeks after the events were compared.

Three faculty members examined all articles in each newspaper during the sampling period. FI was defined as information in news articles that provided details that offered the consumer explicit information to follow-up.

This included name, and agency or address or phone number, or a name and any of these other identifying elements in combination. For example, Ohio EPA Public Involvement Coordinator Shelby Jackson, Governor Voinvich, and Mary Jones of 123 Chestnut Avenue are considered to be FI. References such as "Agency spokesperson," names only, and anonymous sources were ignored. This method eliminated factors like "he said." Although such things like "he said" usually followed FI, this study did not consider it an additional entry.

When FI included more than one identifying element, it was still coded as one entry. For example, "Ohio EPA Public Involvement Coordinator Shelby Jackson," was coded as one entry even though there are two identifying elements. On the other hand, when an unfamiliar name without other identifying elements was listed as the source, it was not counted. For example, "Mary Smith," was not counted. Even though local neighbors might recognize the name as a local person, non-local readers would not have that knowledge. However, "Greenpeace member Terri Swearinger" was counted as an entry.

First, a total number of frequencies of FI in all newspapers was calculated. This was broken into before and after components. Therefore, frequencies were tabulated two weeks before the incidents, and two weeks following the incidents to see if there was a significant difference in all newspapers.

Second, newspapers were grouped into non-local and local categories for a comparison of FI frequencies two weeks before the incidents and two weeks after the incidents to see if there was a significant difference.

To investigate these incidents, the four larger newspapers, The Columbus Dispatch, The Cleveland Plain Dealer, The Intelligencer of Wheeling, West Virginia, and the Pittsburgh Post-Gazette of Pennsylvania were grouped as non-local. This was determined because all of these papers are published outside a 30-mile radius of East Liverpool, and are published in major cities with large circulations.

The Columbus Dispatch in Columbus, Ohio, is southwest of East Liverpool, and The Cleveland Plain Dealer in Cleveland, Ohio, is northwest. Both are major Ohio newspapers that are published more than 80 miles away. Columbus and Cleveland will not be immediately affected by the impact of the incinerator. The Intelligencer of West Virginia is published about 50 miles down river from East Liverpool at Wheeling, making that area vulnerable to possible disaster, and increased traffic caused by the transport of hazardous waste material to the incinerator. Pennsylvania's Pittsburgh Post-Gazette is published inland southeast, barely over

30 miles away. Pittsburgh residents could also be vulnerable to increased traffic and to possible disaster. Both Wheeling and Pittsburgh could be vulnerable to contaminated air and water when contaminants are blown from the incinerator's smokestacks.

The local newspapers, the Morning Journal and the Evening Review, are published in or near East Liverpool where residents can be immediately affected by the impact of the incinerator.

In addition, employment is minimal at WTI and will not noticeably benefit residents of any of these cities, or East Liverpool and those within a 30-mile radius.

RESULTS

The first question to be investigated was whether there was a significant change in the frequency of FI following the incidents. In order to investigate this question, the frequencies of FI were totaled in the six newspapers two weeks prior to the incidents and again, two weeks following the incidents. A Chi-square "Goodness-of-Fit" test was calculated to determine whether the before/after change was significant.

Findings showed there were 360 frequencies of FI in all the newspapers in the October protest. There was a total increase of FI in the newspapers after the incident. There were 102 frequencies of FI before October 13, 1991, for 28%. After the incident there were 258 frequencies of FI for 72%. Chi square proved to be statistically significant (X_c = 36.5, d.f. = 1, $p < .001$).

The second question researched was whether there was a significant change in the frequency of FI in the non-local and local newspapers after the incident.

A Chi-square was calculated to test the hypothesis of whether there was a change of frequency in the non-local and local newspapers after the incident.

The non-local papers showed 77 frequencies for 21%. Contrary to what was expected, there was a decrease in FI in the non-local papers after the protest. Before the protest non-local papers reported 43 frequencies for 42%. After the protest there were only 34 frequencies in the non-local papers for 13%.

There was an increase of FI after the incident in the local papers. Findings showed there were 283 frequencies for 79%. Before the incident there were 59 frequencies for 58%. After the incident there were 224 frequencies for 87%. The results are provided in Table 1.

TABLE 1

Frequency of FI

in Non-Local and Local Newspapers

NEWSPAPERS	Before	After	Total
Non Local	43	34	77
Local	59	224	283
TOTAL	102	258	360

Table 1: Frequency of FI in columns for location of newspapers Before/After.

Chi Square proved to be statistically significant.

$X^2 = 36.5$ d.f. = 1 $p < .001$

Was there a significant change in the frequency of FI following the December 15, 1991, incident? The same investigation took place for this second protest. FI in all six newspapers was tallied for two weeks prior to the incident and again, two weeks following the incident. A Chi-square "Goodness-of-Fit" test was calculated to determine whether the before/after change was significant.

Findings showed there were 292 frequencies of FI in all the newspapers in December 1991. There was an increase of FI in all the newspapers after the incident. There were 101 frequencies of FI before December 17, for 35%. After the incident there were 191 frequencies of FI for 65%. Chi square proved to be statistically significant ($X^2 = 27.74$, d.f. = 1, $p < .001$).

Findings showed there were 20 frequencies of FI before the incident in non-local newspapers for 20%, and 72 frequencies of FI after the incident for 38%.

There were 81 frequencies of FI before the incident in local newspapers for 80%, and 119 frequencies of FI after the incident for 62%. The results are provided in Table 2.

TABLE 2

Frequency of FI

in Non-Local and Local Newspapers

NEWSPAPERS	Before	After	Total
Non Local	20	72	92
Local	81	119	200
TOTAL	101	191	292

Table 2: Frequency of FI in columns for location of newspapers Before/After.

Chi Square proved to be statistically significant.

$X^2 = 8.99$ d.f. = 1 $p < .01$

CONCLUSION

October Protest

The first hypothesis expected that the total of all newspapers would increase the amount of FI after the October protest. The data support this. The frequency of FI in the six newspapers increased following the protest.

The second hypothesis anticipated that local papers would increase the frequency of FI more than non-local papers. The data support this hypothesis. The local papers showed more frequencies of FI after the event.

While the local newspapers contained a greater frequency of FI than non-local newspapers both prior to and following the incident, the frequency of information increased in local newspapers after the incident, but decreased in the non-local newspapers.

As was hypothesized, the frequency of FI in the total of all newspapers, and in the local newspapers increased significantly after the incident. However, there was a decrease in the case of non-local papers.

December Protest

The first hypothesis expected the total of all newspapers would increase the amount of FI after the December "handcuffing" incident. The data support that hypothesis. The frequency of FI in the six newspapers increased following the incident. This suggests that the "handcuffing" event that was staged for the purpose of being reported was effective because the rate of FI increased.

The second hypothesis predicted that local papers would increase the frequency of FI more than non-local papers. The data support this hypothesis. The local papers showed more frequencies of FI after the "handcuffing" event than did the non-local papers.

But, while the local newspapers contained a greater frequency of FI than non-local newspapers both prior to and following the incident, the frequency of this information accounted for by non-local newspapers rose. At the same time, the frequency of this information accounted for by local newspapers decreased.

Therefore, the frequency of FI in the total of all newspapers, and in the local newspapers increased significantly after the incident as was hypothesized. However, the effect was more noticeable in non-local papers since they had done less reporting before the incident.

Consequently, this study indicates newspapers increase FI after a protest. However, this is not always true when newspapers are broken into non-local and local categories.

Results of this study seem to depart somewhat from the findings of Lemert and the Oregon group, and Rossow and Dunwoody. They found FI that provides enough detail to follow-up and to act on, is minimal, or likely to be missing in controversial/negative contexts.[17] This study did not find FI lacking in detail, nor did it discover that it was nearly nonexistent.

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[17] Lemert, Mitzman, Seither, Cook and Hackett, p. 725.

In addition, the Lemert study found that non-local papers carried FI least.[18] This study confirms that finding when it deals with non-local and local papers. However, while this study agrees with that in frequency count and percentages, it somewhat departs when it looks at the December protest when the percentage of FI in local papers decreased after the protest event and increased in non-local papers.

This study did not look at partial information such as "Mary Smith," nor did it look at nonexistent information such as "agency spokesperson." It solely examined FI in protest controversial contexts, and did not compare frequencies of FI to other controversial news stories. At the same time, results of this study seem to indicate FI is, at the least, adequately present in some controversial/negative contexts.

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[18] Lemert, Mitzman, Seither, Cook and Hackett, p. 725-6.

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THE WAR ON DRUGS: A CONSTRUCTIONIST VIEW

by

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America's "War on Drugs" is a controversial issue, and one that's garnered much attention in the news media. In recent years, the U.S. federal government has battled with other "stakeholders" to control the ways in which drug-related news stories are framed. These stakeholders -- or parties with vested interests -- have helped to fill the newspapers and airwaves with drug news stories that are rhetorically charged. When stakeholders act as journalistic sources, they often promote stories that are laden with metaphors, catchy phrases and other semantic devices, in an effort to put a particular "spin" on the issue.[1] [2]

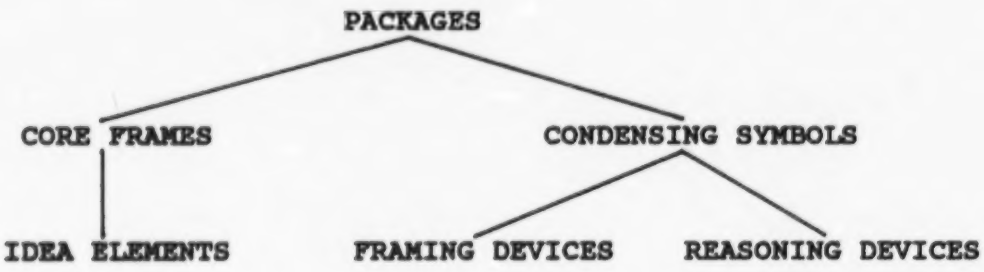
In this study we examine newspaper coverage during the fall of 1989, the time when President Bush first announced his own War on Drugs. Specifically, we perform a constructionist analysis (Gamson, 1989 and 1988; Gamson and Lasch, 1983; Gamson and Modigliani, 1989 and 1987) on a sample of drug-related articles, to demonstrate the different kinds of spin that sources have put into them. We also study the link between distinct types of journalistic sources and the specific kinds of spin they help to produce.

THE CONSTRUCTIONIST APPROACH

Constructionist analysis differs from traditional content analysis in the following way: while content analysts typically focus on the manifest informational content of texts, those who use the constructionist approach place more emphasis on the

interpretive commentary that surrounds this manifest content (Gamson, 1989, p. 158). Constructionists do not ponder the meaning of aggregations of words or phrases; instead, they probe news articles and other texts for the presence of packages (Gamson and Modigliani, 1989, p. 3). These packages are schemes that people use to construct meanings in messages they send, and to interpret meanings in messages they receive. Packages contain core frames, or central organizing ideas that help the speaker to convey "what's at issue," and the idea elements[3] of which they're made. Packages also contain condensing symbols -- linguistic and rhetorical devices that tie discrete bits of content together and situate them within an emerging context (Gamson, 1989, p. 158). There are two types of condensing symbols: framing devices[4] and reasoning devices.[5]

We can summarize the hierarchy of textual structures listed above in the following diagram:



While the comparison is not directly analogous, one can see that packages and "package parts" (core frames and condensing

symbols) are conceptually related in a way that's similar to the "Concept-Dimension-Indicator" model for hypothetico-deductive research. Packages are the most abstract of these structures, while idea elements, framing devices and reasoning devices can be readily identified in the text of a news story.[6]

The structural features of packages found in a sample of news articles or other texts can be summarized in a table that Gamson and Modigliani call the signature matrix. In this paper we use a signature matrix to summarize the core frames and condensing symbols that newspaper reporters use when writing about drug-related topics. Analysts using the constructionist approach can identify "package parts" and aggregate them into a coherent whole -- the package itself. In so doing, they explore the richness and complexity of texts in a way that conventional content analysts cannot.

RESEARCH QUESTIONS

Using the constructionist approach, we set out to describe the packages found in newspaper articles about drug-related issues and events. This task brings two questions to mind:

1. Can we identify core frames and condensing symbols within news texts, and then aggregate them into packages through exploratory factor analysis?[7]

2. Is there any link between the kinds of sources used in news articles and the occurrence of certain packages in those same articles?[8]

While our research questions focus on methodological issues,

the answers to these questions will also provide substantive information about the ways that journalists and their sources help to shape news stories about the War on Drugs.

STUDY DESIGN/ANALYSIS

To address the first research question, we conducted a constructionist analysis of articles from a local daily newspaper. To address the second research question, we used multiple regression analysis to find any associations between sources cited in the articles, and the packages found in those same articles.

ANALYSIS - PHASE 1:

The unit of analysis for our study was the news article. We examined 202 articles published in the Wisconsin State Journal[9] between September 1, 1989 and November 11, 1989. These articles represent about two-thirds of all drug-related articles published by the newspaper during the sampling period; the remaining articles were used to pretest early drafts of the content code. The sampling period includes the date of President Bush's nationally televised Drug War speech (Sep. 5). It marks a time when the Associated Press and other news services wrote a large number of articles about the speech, and its impact on legislators at both the state and national levels.[10]

The first step in this phase of the analysis was construction of a signature matrix (Figure 1); a summary of the

packages and "package parts" that can be found in contemporary writing about drug-related issues. We constructed this matrix by reading 93 relevant news articles and op-ed pieces, noting carefully the core frames and condensing symbols used therein. We supplemented this work by reading a wide range of books, journal articles, and magazine articles written by academics in the fields of criminology, history, journalism and mass communication, political science, psychology and psychiatry. This literature represents viewpoints about drugs that range across all parts of the "left to right" political continuum in America.

Next, we made a tentative list of packages found in articles about drug-related issues:

WAR: There are two main core frames in the war package: (1) the effort by government officials in the U.S. and Columbia to convince citizens that drugs are a national security threat; and (2) statements by U.S. politicians who think drugs are bad, but don't approve of warlike anti-drug policies.

RESISTANCE: The main goal of resisters is to demonstrate that drugs and drugs users are not to blame for society's problems. They see the "War on Drugs" as a violation of personal freedoms.

TREATMENT: Advocates of this package feel that drug addiction is preventable and treatable. They maintain that treatment and education efforts are preferable to law enforcement, when it comes to curbing drug abuse.

SICKNESS: The core frame of this package is a view that substance abuse and addiction are social diseases. Addiction is viewed as "contagious;" a problem that threatens to spread to "normal" parts of society.

This list of packages served as the "backbone" of our emerging content code.

Based on our reading of news and academic articles, we constructed a list of 77 idea elements, 30 catch phrases and 23 metaphors.[11] To facilitate greater ease in coding, we grouped these package parts together under headings that indicate the package they are theoretically associated with (see Figure 2 for a sample page of the content code).

While the coding of metaphors and catchphrases was a straightforward procedure, the coding of idea elements requires a bit of explanation. Idea elements are elements of thought that become manifest in the text of a news article, and they can be located through a close reading of each relevant passage. To illustrate the coding of idea elements, let's consider a paragraph from a newspaper story on September 3, 1989 about President Bush's forthcoming Drug War proposal. In this paragraph, a drug treatment expert comments on the role of "drug czar" William Bennett in the formation of Bush's policy positions.

> Robert Newman, president of the Beth Israel Medical Center in New York, praised Bennett for recommending more spending on treatment, but said it was "an extraordinary and incomprehensible omission" that the draft [of the Bush policy] he read did not emphasize treatment on demand.

Upon reading this passage, the coder would notice two distinct trains of thought: (1) Bennett is right to recommend more spending on drug treatment, and (2) The Bush administration is wrong to omit provisions for "treatment on demand." These trains of thought would be coded as two separate idea elements

(see Figure 2): #206 - "Any drug war plan should strike a balance between punitive measures and treatment, education, and prevention measures;" and (2) #502 - ..."Everyone should be able to get treatment, if need be."

One person coded all of the desired information from the 202 articles. First, the coder located the appropriate variable name for each idea element, metaphor or catchphrase found in an article. He then indicated the number of times each of these "package parts" appeared in the article on the appropriate line of a coding sheet. Later, a second person re-coded 40 articles drawn at random, to check for intercoder reliability. Alphas ranged from 0.00 to 1.00, with an average intercoder reliability level of .892.[12]

Frequency counts of idea elements show that those associated with the WAR package were most common (75.6 %). SICKNESS idea elements were the second most common (9.9%), followed by TREATMENT (9.2%) and RESISTANCE (5.3%).

Of the four catchphrase categories, WAR catchphrases were most frequently used (68%). TREATMENT catchphrases were the second most often used (14.4%), followed by SICKNESS (9.8%) and RESISTANCE (7.8%).

Of the four metaphor categories, WAR metaphors were the most frequently used (74.1%). SICKNESS metaphors were the second most common (15.2%), followed by RESISTANCE (7.1%) and TREATMENT (3.6%).

The 12 variables described above (ex., "war metaphors,"

"treatment catchphrases," etc.) were factor analyzed to extract the packages present in the data set. The results of this analysis are reported later in the paper.

ANALYSIS - PHASE 2:

In this phase of the analysis (related to our second research question), we probed for associations between packages found in news stories and the sources used by journalists who wrote those stories. Again, associations between particular sources and packages may provide evidence that the sources have imparted a certain spin on journalistic coverage of the story at hand.

Each source mentioned in an article -- whether quoted directly or not -- was coded into one of seven categories: (1) FOREIGN sources (Non-government sources in Colombia, Colombian government sources, other Foreign sources); (2) U.S. FEDERAL GOVERNMENT sources; (3) STATE/LOCAL GOVERNMENT sources; (4) TREATMENT advocacy sources (non-government); (5) RESISTER sources (Pro-drug protesters, drug users, drug traffickers, drug growers, drug criminals, etc.); (6) OTHER sources; and (7) UNATTRIBUTED sources. The "Unattributed" source category was coded whenever a reporter made a controversial assertion, and no easily identifiable source could be found in (or inferred from) the text of the story.

Each article was further classified according to its author: (1) Reporter for Wisconsin State Journal, (2) Reporter for Wire

Service or Other News Service (mostly Associated Press), or Other Author (includes combined authorship). The articles were also coded according to their geographic origin; the country from which the article originates. Again, we used three categories: (1) United States, (2) Colombia or (3) Other Country.

We designed a series of multiple regression analyses to determine the kinds of packages that appeared in stories in which journalists used particular kinds of sources. Each of the four Package variables (i.e., WAR, RESISTANCE, TREATMENT, SICKNESS) was used as the dependent variable in a separate multiple regression. The main independent variables were the Source variables. We controlled for the Author and Geographic Origin of articles; these two variables were entered as dummy variable comparisons.

RESULTS

As noted earlier, we coded for a total of 77 idea element variables, 30 catchphrase variables and 23 metaphor variables. We reduced these variables to 12 variables by placing them in distinct groups; these groups might be thought of as "clusters" of theoretically associated variables. This transformation produced three "WAR" package variables (ex., IEWAR = war idea elements, MWAR = war metaphors and CWAR = war catchphrases), and three variables for each of the other packages. These variables were factor analyzed to extract the packages present in the data set.[13] Principal component extraction was used, along with

varimax rotation.[14] Kaiser's rule was used to determine the number of factors to extract.

In answer to our first research question, four interpretable factors emerged from the factor analysis of idea element, catchphrase and metaphor variables (see Table 1); they correspond to the four packages outlined in the section above -- Resistance, Treatment, War and Sickness.[15] [16]

We used these "package variables" to answer the second research question; namely, "is there any link between the kinds of sources used in news articles and the occurrence of certain packages in those same articles?"

Pearson correlations show that journalists who used information from U.S. Federal Government sources were more likely to use the War package in their stories ($r = .27$, $p < .001$, 1-tailed). Journalists who used more information from State/Local Government Sources were likely to use the Treatment ($r = .26$, $p < .001$, 1-tailed), Resistance ($r = .15$, $p = .014$, 2-tailed), and War packages ($r = .12$, $p = .047$, 1-tailed) in their stories.

Next, we used the four "package variables" as dependent variables in a series of multiple regression analyses (see Table 2); the source variables were used as independent variables.[17] These analyses also support the notion that journalists who used government sources (both U.S. Federal Government and State/local government) were more likely to use the War package. The multiple regression analysis using the War package as the

dependent variable showed that the U.S. Federal Government source variable (Beta = .40, $p < .001$) and State/local Government source variable (Beta = .35, $p < .001$) were significantly related to the use of the War package. Use of Unattributed information in articles was also significantly associated with the War package (Beta = .18, $p < .01$). The "U.S.- Colombia comparison" dummy variable was also significantly related to the War package. Though articles originating in Colombia only make up 15.3 percent of the ar cles sampled, a one-way ANOVA test shows that they do exhibit a relatively high mean occurrence of the War package; significantly higher than with stories originating in the United States. Thus, the density of "war" characterizations in drug-related stories from Colombia represents a significant influence on the occurrence of the War package.

The multiple regression analysis with the Treatment package as dependent variable revealed, not surprisingly, that use of the Treatment package was significantly associated with use of Treatment sources (Beta = .35, $p < .001$). This package was also associated with State/Local Government sources (Beta = .24, $p < .01$). The multiple regression analysis with the Resistance package as dependent variable was associated with the use of Resistance sources (Beta = .24, $p < .001$) and Unattributed sources (Beta = .16, $p < .05$). The "Wisconsin State Journal - Wire Service comparison" dummy variable was also significantly related to the Resistance package. This may be due to a number of stories written during the sampling period about a Madison-

based group that fights for the repeal of anti-marijuana laws.

There were no significant relationships between the appearance of the Sickness package and any of the source or control variables.

CONCLUSIONS/DISCUSSION

This study supports the notion that media packages -- normally identified through constructionist analysis -- can also be identified through the use of exploratory factor analysis. By doing this, we can create quantitative variables for use in other, more sophisticated forms of statistical analysis. Our results suggest that both the manifest and latent content of news stories can be quantifiably measured. This sort of measurement allows the analyst to probe deeper into the meanings that sources and journalists give to news stories. Further knowledge about the construction of meaning during the news production process may help researchers learn more about the ways that journalists do their jobs, and the ways in which their work affects audiences.

In a substantive sense, our multivariate analyses show that journalists and their sources -- especially government sources -- largely chose to talk about drug-related issues and events in terms of "War."[18] This finding suggests that politicians, public relations practitioners and others who serve as news media sources can, and do put their own particular "spin" on a given issue, once they gain access to journalists.[19]

Our research is, in a sense, an extension of agenda-setting and agenda-building studies. McCombs (1981) has demonstrated the media's ability to cue audiences about important issues. He's also shown (1992) that politicians and other journalistic sources are able to cue the media about the importance of certain issues. The results of our study suggest that sources not only cue the media about important issues; they also interject potential meanings -- or highly specific ways of thinking about these issues -- into the stories they promote.

Much work is needed to develop this approach more fully. In particular, the development of a comprehensive lexicon of condensing symbols -- such as catchphrases, metaphors and exemplars -- would be most useful.

Our study has several limitations: (1) Gamson and Modigliani (1987) measure package prominence over time, while our study focuses on one point in time. Explanatory power could be increased if more stories were analyzed over a longer period of time. (2) The stories we sampled came from one newspaper -- the Wisconsin State Journal. Though most of these articles were written by the Associated Press (and hence published in many other papers), our study would be strengthened through analysis of other newspapers, both local and national. (3) Our analysis is focused on news texts, and not on the ways in which individual humans may read and interpret those texts. While news stories may suggest a range of meanings for audience members, the manner in which a given reader meets those meanings and creates his/her

own is a topic beyond the scope of this article, and an excellent topic for future research.

We also agree with Gamson and Modigliani's suggestion that scholars should probe for possible correlations between the packages found in news articles and the schemata that audience members possess regarding a given topic.

ENDNOTES

1. Bennett (1988) writes about the process of creating "spin;" a process in which powerful sources try to advance organizational goals by packaging information for the media. He says the process involves three steps: (1) "composing a simple theme or message for the audience to use in thinking about the matter at hand;" (2) "saturating communications channels with this message so that it will become more salient than competing messages;" and (3) "surrounding the message with the trappings of credibility so that, if it reaches people, it will be accepted" (pp. 73-74).

2. For examples of drug war rhetoric, see Carlisle (1990). For discussion about the social forces that underlie this rhetoric, see Alexander (1990 a and b).

3. Gamson and Modigliani (1987, pp. 171-172) imply that idea elements -- the building blocks of core frames -- can be coded from news articles in the following way:

   > (1) Coders first identify passages of articles that are relevant to the purpose of the study.
   >
   > (2) Next, they enter quotes -- along with information about their context -- onto a coding sheet or database file.

   Idea elements are passages of relevant text that center on one particular line of thought. Examples of idea elements appear at the end of this paper, in **Figure 2**. Idea element #500 captures the idea that "treatment is better than punishment," when it comes to solving drug problems. In contrast, idea element # 501 captures the idea that "addiction is a disease." One can see that these idea elements are analogous to "indicators" of different "dimensions" (core frames). These dimensions, in turn, are part of the overall "concept" (package) that describes drug treatment, education and prevention efforts.

   While Gamson and Modigliani provide information on the relationship between idea elements and other parts of media packages, they fail to define the spatial boundaries of these idea elements. Idea elements may consist of a few words, or a few sentences. Thus, we may define an idea element more specifically as "a group of words that points to a discrete line of thought, as coded in a relevant passage of a news article or other text."

   For an example of the coding of idea elements, please refer to the section in this paper titled "STUDY DESIGN/ANALYSIS."

4. Gamson and Lasch (1983, pp. 399-400) define framing devices in the following way (and with specific reference to the issue culture of the Vietnam War):

   A. METAPHORS - A metaphor always has two parts - - the principal subject that the metaphor is intended to illuminate and the associated subject that the metaphor evokes to enhance our understanding.

   B. EXEMPLARS - Real events of the past or present are frequently used to frame the principal subject. ...The Korean War was probably the most important exemplar for the Vietnam example...

   C. CATCHPHRASES - Commentators frequently try to capture the essence of an event in a single theme statement, tagline, title, or slogan that is intended to suggest a general frame. Catchphrases are attempted summary statements about the principal subject. "Invasion from the North" was the title of the State Department paper produced just prior to the Johnson administration escalation of the Vietnam War in 1965.

   D. DEPICTIONS - Packages have certain principal subjects that they characterize in a particular fashion. ...Lyndon Johnson depicted the critics of his Vietnam policy as "nervous nellies..."

   E. VISUAL IMAGES - We include here icons and other visual images that suggest the core of a package. The American flag is the most obvious icon associated with the Vietnam package...

5. Gamson and Lasch (1983, p. 400) also define reasoning devices, again, with specific reference to the issue culture of the Vietnam War:

   A. ROOTS (CAUSAL ANALYSIS) - A given package has a characteristic analysis of the causal dynamics underlying the set of events. The packages may differ in the locus of this root - that is, in the particular place in a funnel of causality to which the root calls attention. The root provided in the Vietnam package is that of a military attack by a Soviet proxy against a United States ally that is an independent country.

B. CONSEQUENCES - A given package has a characteristic analysis of the consequences that will flow from different policies. Again, there may be differences in whether short or long-term consequences are the focus. The consequences emphasized in the Vietnam example are the negative effects on American national security of a communist takeover of South Vietnam.

C. APPEALS TO PRINCIPLE - Packages rely on characteristic moral appeals and uphold certain general precepts. In the Vietnam example, the principles appealed to included the defense of the weak and innocent against unprovoked aggression and the honoring of one's word and commitment to friends.

6. For an alternative conceptualization of the structures present in news stories, see Pan and Kosicki (1993), pp. 58-63.

7. In this study, we coded more than 100 idea element, catchphrase and metaphor variables. We used factor analysis to reduce the number of variables in our analysis (i.e., to aggregate them into package variables). This task had to be completed before any attempt to answer the second research question.

8. An association between a particular source and package may indicate an effort by the source to impart "spin" on a story. For further discussion of this issue, please see CONCLUSIONS/DISCUSSION section of this paper.

9. The Wisconsin State Journal is a daily paper with a circulation of 85,803 Monday through Saturday, and a Sunday circulation of 163,240. Its strongest coverage area lies in south-central Wisconsin, in and around the capitol city of Madison.

10. Our use of the Wisconsin State Journal in this pilot study presents an interesting problem of generalizability. On the one hand, it's hard to generalize any findings based on analysis of articles published in a single paper. On the other hand, 71 percent of the sampled articles were written by reporters for the Associated Press and other news services. Since these articles likely appeared in many other newspapers around the country, we can say that our results do retain a modicum of generalizability.

In future extensions of this research the authors plan to sample articles from other newspapers, including the New York Times.

11. Coding in constructionist analysis involves the identification of idea elements (each of them related to a core frame) and a variety of condensing symbols -- both framing and reasoning devices. We restricted our coding of condensing symbols to metaphors and catchphrases for two reasons: (1) We wanted to have some quantitative record of these devices (Gamson, et. al., do not count them in any formal way), but felt that time constraints did not permit the coding of all eight condensing symbols; and (2) metaphors and catchphrases are among the most vivid framing devices used in newspaper articles. Thus, they're excellent indicators for a limited study of framing devices, and the ways in which they work together with idea elements.

12. Intercoder reliability was computed for 81 variables (a number of variables were discarded from reliability analysis, since they occurred so seldom in the 40 jointly-coded articles that computation of alphas was impossible). The coders disagreed completely on the coding of six variables; hence, the report that alphas ranged between 0.00 and 1.00. However, the coders achieved very high reliability on most of the remaining variables (alphas of .90 and above). Thus, the average reliability level was .892.

13. For the purposes of this study, we chose to perform an exploratory factor analysis. We had a fair idea going into the study about the sorts of factors that might emerge. However, we decided to use an exploratory method because of the novelty of the application; we're not aware of any other study in which factor analysis is used to help define the structures that Gamson refers to as "packages." We also used the exploratory method to establish an initial sense of construct validity among the packages. Since the resulting packages (factors) are quite distinct (see Table 1), we feel this goal has been achieved.

    Scholars seeking to replicate this study may use confirmatory factor analysis with greater confidence.

14. The authors used both varimax and oblique rotations. The results were virtually the same.

15. When we first attempted factor analysis, the "treatment metaphor" variable loaded weakly onto the Treatment factor. It was dropped, and the factor analysis was run again. The four factors from this analysis are the ones we kept; they allowed for a slight strengthening of loadings on the remaining factors.

    The results of the second factor analysis appear in Table 1.

16. This exercise is tautological, in a sense, as the variables entered into factor analysis had already been sorted into categories that reflect the final "package factors" that emerged.

    Nonetheless, this factor analysis lends credence to the conceptualization of packages that we developed -- in qualitative fashion -- from the signature matrix. It also gives us a way to obtain ratio level "package variables"; variables that may subsequently be used in multiple regression analysis.

17. The authors checked for high multicollinearity between the source variables, and found that it was not a concern.

18. McCauley (1992) suggests that these representations of "War" are often made without sound empirical justification. He notes that powerful sources -- who find drug use to be morally repugnant -- have often managed to convince journalists that America's drug problems are worse than they really are. Statistics about drug use and abuse have been consistently inflated since the turn of the century.

    In addition, advocates of a "War on Drugs" typically sidestep the issue of widespread alcohol and tobacco abuse in America. These drugs exact a far higher toll from the American public -- in terms of mortality and health care costs -- than do all other "illicit" drugs taken together. Yet these "legal" drugs have been mentioned far less often in the media, in terms of their detrimental effects (see pp. 21-48).

19. Efforts to impart spin do not guarantee that a journalist will write a story in the desired fashion. However, other factors -- including the organization of newswork -- may heighten the likelihood that these attempts at issue management will succeed.

    Sigal (1986) says news organizations tend to dispatch reporters to routine places like Capitol Hill or City Hall, where they seek out "highly authoritative" sources. He says reporters and editors give such high-ranking sources an inordinate amount of access to the pages of their newspapers (pp. 16-20).

    Gamson (1988) also writes about the role of newswork in the creation of media packages. Specifically, he says that (1) journalistic work is organized by a "balance" norm, which calls for the balancing of two competing views within most stories; (2) the balance norm seldom allows for media packages that seriously contest those offered by government and other official sources; (3) journalists are likely to have routine relationships with government and other official sources; and (4) journalists -- consciously or

unconsciously -- often designate a package suggested by an official source as the "starting point" for the consideration of various viewpoints on a given issue (pp. 168-169).

In addition, it is important to note the serious time constraints that reporters face when producing stories, and the editorial constraints on the size of a given story. Both of these factors may discourage journalists from contacting sources who offer alternative viewpoints.

FIGURE 1

SIGNATURE MATRIX

Signature matrix for Drug News Discourse

PACKAGE	CORE FRAME	POSITION	METAPHORS	DEPICTIONS	CATCHPHRASES
War	(1) Government officials in the U.S. and Colombia try to convince citizens that warlike measures are needed to address a threat to national security from drugs and drug trafficking. (2) Other politicians agree that drugs and drug trafficking are bad, but disagree with current drug war tactics.	President Bush wants tougher drug laws, more prison beds, and military aid to help Colombia with its drug war. U.S. Democrats want to fight drugs, but also want more money for treatment, education, and prevention programs. President Barco of Colombia has declared war on drug barons. He wants to arrest them and extradite them to the U.S.	Drug war, anti-drug crusade, wave of drug-related terrorism, a dragnet for drug traffickers, anti-drug strike forces and task forces, boot camps for drug offenders, drug emergency, drug explosion, drugs invade the U.S., cocaine babies as war casualties.	Drug warriors work against tough odds to get traffickers and users put behind bars. Resisters who use drugs are immature, deviant, or anti-social. Other resisters are naive or misguided. Villains, be they people or drugs, are powerful and wicked. Victims include the young and poor people who are most vulnerable to drugs. They're often ignorant, passive, or helpless. They must be protected.	The drug menace, drugs as the gravest threat to society, the ravages of addiction, manning the front lines in the drug war, sealing our borders against drugs, drug-free zones around schools.
Resistance	The issue is how to demonstrate that drugs and drug users are not to blame for society's problems. The drug war violates personal freedoms.	The drug war should be scrapped. We'll never control drugs through law enforcement. The U.S. should send economic aid - not military aid - to drug growing countries.	The Bush drug war plan as a shiny new car with no engine under the hood and no fuel in the tank.	Resisters defy the drug war and fight for personal freedoms. They describe warriors as irrational, overly dogmatic moral zealots.	Drug testing is a witch hunt or an example of big brother, the war against pot is a waste of time and money, "who deals more coke - the CIA or Colombia?"
Treatment/Education/ Prevention	The issue is how to let people know that addiction is a disease that can be prevented and treated.	Treatment is better than law enforcement, when it comes to fighting drugs. Prevention and education programs are important, especially for children and teens.	Helping addicts is like cleaning up after an earthquake; people who are strong do what they can to help the victims.	Drug addicts are often victims of social forces beyond their control. We must understand their plight, treat their addiction, and prevent further addiction in society.	Community-wide alliances for drug abuse prevention, grass-roots efforts, just say no, down with dope and up with hope, prevention - not prisons.
Sickness/Social Illness	The issue is how to keep the plague of drug abuse from spreading throughout the normal or mainstream sectors of society.	Drug users and sellers are morally or spiritually weak. We must stop the spread of drug abuse through increased law enforcement and compulsory treatment for some offenders.	Drug epidemic, drug plague, drug and alcohol abuse as a social disaster, the spiritual malaise that leads to drug addiction.	Drug users and traffickers (resisters and villains) help to spread epidemics, infestations, and plagues. We must wipe out these social ills.	The crack crisis, steroids may destroy football.

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FIGURE 1 (continued)

PACKAGE	EXEMPLARS	VISUAL IMAGES	ROOTS	CONSEQUENCES	APPEALS
War	Continued drug-related violence in North and Latin America. LESSON: We must step up law enforcement efforts against drug users and traffickers. Drug trafficking is a $300 billion a year industry. LESSON: Drug traffickers are very rich. It will take a strong commitment to win the drug war.	Photos of guns and drugs taken in raids, of bombing and assassination scenes, of soldiers and equipment used in the drug war, of George Bush holding a bag of crack supposedly bought across the street from the White House.	Drugs are to blame for most of our violent crimes. Differing opinions about the nature of drug problems make it tough to get agreement on the best ways to fight and finance the drug war. The U.S. is trying to oust Manuel Noriega because he's a drug trafficking dictator. (implicit) Drugs and drug traffickers are inherently evil. They're the reason for the drug war.	Drug policies that are too lax will lead to more drug abuse, trafficking, and violent crime. If drug arrests increase, we'll need more prison space to handle the influx of drug criminals. Colombia's crackdown on drug barons has led to a violent backlash, but it will help to stop the drug trade in the long run. The U.S. must make a better effort to oust Manuel Noriega. If we don't, freedom and democracy in Panama will suffer.	We must use every reasonable means to stamp out drugs and drug trafficking. Harsh punishment is necessary. Society's attitude toward drugs must change. We must all pull together to fight drugs. We need to have drug testing in the workplace.
Resistance	Pot and pot smokers are harmless. LESSON: There's no need for any crackdown on pot.	Photo of a pot smoking protester on Bascom Hill.	U.S. leaders don't want to confront the real causes of drug abuse; instead, they blame some "exotic other" for the problem. The Colombian cocaine problem is due, in part, to U.S. interventions in Latin America.	Warlike drug policies will only create more social conflict at home and abroad. Economic support for Andean nations could help to ease the U.S. cocaine problem.	Let's stop the drug war and find a more appropriate solution. Why not legalize drugs? We could cut down on drug-related crime by following that option.
Treatment/Education/ Prevention	Addictions are tough to overcome. LESSON: We must provide adequate funds for drug treatment. Children are drinking earlier - and heavier. LESSON: We need more drug abuse prevention efforts.	Photos of Bush and his aides showing concern for children and promoting drug prevention efforts.	Drug addiction is a disease caused by a variety of social problems, including low self-esteem and parental neglect.	If we fail to treat the root causes of drug abuse and addiction, we'll never solve these problems to any great extent.	Let's help addicts to get the help they need. Let's have more community-wide drug abuse education and prevention programs.
Sickness/Social Illness	Dangerous new drugs are spreading quickly through the U.S. LESSON: We must stop this epidemic before it reaches "our neighborhood."	Photo of Bush in a hospital ward for babies abandoned by drug-addicted mothers, photo of two young Colombian boys smoking pot.	Drug abuse and addiction are born of spiritual malaise or moral weakness.	If we don't quarantine drugs and drug offenders, the illness they bring will spread to other parts of society.	Americans need to know just how bad drug problems are. When they do, they'll help to stop the drug epidemic from spreading.

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FIGURE 2
SAMPLE PAGE OF CONTENT CODE (IDEA ELEMENTS)

WAR (includes local law enforcement issues)

204. Undercover informants (not police officers) are an essential part of drug enforcement efforts.

205. Let's set up "drug-free zones" near schools.
(see 505/TREATMENT and 607/SICKNESS)

206. Any drug war plan should strike a balance between punitive measures .. and treatment, education, and prevention measures. We should have adequate funding for the latter kind of measures.
(see 400/RESISTANCE and 500/TREATMENT)

TREATMENT

500. Treatment, education, and prevention programs are better tools for solving our drug problems than the warlike measures proposed by Bush and Thompson.
(see 206/WAR and 400/RESISTANCE)

501. Addiction is a disease. Addictions are sometimes very hard to overcome.

502. We must work to get adequate funding for drug treatment and treatment centers. Everyone should be able to get treatment, if need be.
(see 206/WAR, 400/RESISTANCE and 500/TREATMENT)

TABLE 1

Packages in Drug News Discourse
PRINCIPAL COMPONENT FACTOR ANALYSIS
USING ORTHOGONAL SOLUTION AND VARIMAX ROTATION

Resistance Package	**FAC 1**	**FAC 2**	**FAC 3**	**FAC 4**
Resist. Idea Elements	.862	.124	.109	.077
Resist. Catchphrases	.792	-.203	-.020	.051
Resist. Metaphors	.576	.373	.062	-.133
Treatment Package				
Treat. Catchphrases	-.061	.808	-.016	.133
Treat. Idea Elements	.118	.794	-.061	.013
War Package				
War Idea Elements	.011	-.035	.852	.001
War Catchphrases	.030	-.175	.751	.057
War Metaphors	.140	.423	.619	-.017
Sickness Package				
Sick. Idea Elements	.034	.107	-.053	.870
Sick. Metaphors	-.096	.149	.160	.664
Sick. Catchphrases	.080	-.105	-.042	.641
Eigenvalue	2.16	1.70	1.58	1.43
Variances	19.7%	15.4%	14.4%	13.0%

Total % of Variance Accounted For: 62.5 %

n = 202

TABLE 2

MULTIPLE REGRESSION ANALYSIS

INDEPENDENT VARIABLES	DEPENDENT VARIABLES (PACKAGES) WAR Beta/Correl.	TREATMENT Beta/Correl.	RESISTANCE Beta/Correl.	SICKNESS Beta/Correl.
GEOGRAPHIC ORIGIN (dummy variable = Colombia)				
U.S. vs. Colombia	-.283 -.218[a]	.097 .225	.106 .096	.120 .050
Other vs. Colombia	-.088 -.011	-.004 -.109	.083 -.012	.079 .028
ADJUSTED R^2	.055	.041	.001	.0003
AUTHOR OF ARTICLE (dummy variable = Wire Service)				
Wisc. St. Journ. vs. Wire Service	-.022 -.103	.010 .108	.192 .273[a]	-.026 .029
Other vs. Wire Service	.003 -.060	.060 .086	-.041 -.088	-.093 -.074
ADJUSTED R^2	.001	.001	.061	.0002
SOURCE				
Resister	.021 .049	-.100 -.073	.241 .298[c]	-.065 -.056
Treatment	-.002 -.015	.354 .363[c]	-.017 .039	.101 .133
Foreign Government	.103 .267	-.048 -.188	-.029 -.081	-.005 -.043
U.S. Federal Government	.401 .267[c]	.032 -.045	.036 -.019	-.053 -.047
Other	.056 .098	.048 -.039	.073 -.014	.041 .026
Unattributed	.176 .282[b]	.021 .031	.159 .124[a]	.094 .088
State or Local Government	.352 .118[c]	.244 .259[b]	.077 .155	.085 .077
(Constant)	.950	.155	.101	.397
TOTAL ADJUSTED R^2	.257	.190	.120	.005

n = 202

[a] = sig .05
[b] = sig .01
[c] = sig .001

BIBLIOGRAPHY

Alexander, Bruce K. (1990 a). "Alternatives to the War on Drugs," in The Journal of Drug Issues, 20:1, pp. 1-27.

Alexander, Bruce K. (1990 b). Peaceful Measures: Canada's Way Out of the "War on Drugs," Toronto: University of Toronto Press.

Bennett, W. Lance (1988). News: The Politics of Illusion, White Plains: Longman.

Carlisle, Johan (1990). "Drug War Propaganda," in Propaganda Review, Winter, 1990, pp. 6-9, 43-44.

Gamson, William A. (1989). "News as Framing: Comments on Graber," American Behavioral Scientist, 33:2, pp. 157-161.

Gamson, William A. (1988). "The 1987 Distinguished Lecture: A Constructionist Approach to Mass Media and Public Opinion," Symbolic Interaction, 11:2, pp. 161-174.

Gamson, William A. and Kathryn E. Lasch (1983). "The Political Culture of Social Welfare Policy," in Spiro, S.E. and E. Yuchtman-Yaar (eds.), Evaluating the Welfare State: Social and Political Perspectives, New York: Academic Press, pp. 397-415.

Gamson, William A. and Andre Modigliani (1989). "Media Discourse and Public Opinion on Nuclear Power: A Constructionist Approach," in American Journal of Sociology, 95:1, pp. 1-37.

Gamson, William A. and Andre Modigliani (1987). "The Changing Culture of Affirmative Action," in Braungart, Richard G. and Margaret M. Braungart (eds.), Research in Political Sociology, Greenwich, CT: JAI Press, pp. 137-177.

Kinder, D.R. and L.M. Sanders (1990). "Mimicking Political Debate With Survey Questions: The Case of White Opinion on Affirmative Action for Blacks," Social Cognition, 8, pp. 73-103.

McCauley, Michael P. (1992). The War on Drugs: History and Discourse, Master's Thesis, University of Wisconsin-Madison.

McCombs, M. (1992). "Explorers and surveyors: expanding strategies for agenda-setting research," Journalism Quarterly, 69:4, pp. 813-824.

McCombs, M. (1981). "The Agenda-Setting Approach," in D. Nimmo and K. Sanders (eds.), Handbook of Political Communication, Beverly Hills: Sage, pp. 121-140.

McLeod J., Kosicki, G., Pan, Z. and Allen, S. (1987). "Audience Perspectives on the News," a paper presented to the Association for Education in Journalism and Mass Communication, Communication Theory and Methodology Division, San Antonio, TX.

McLeod J., Pan, Z. and Rucinski, D. (1988). "Framing a Complex Issue: Beyond Remembering Facts," a paper presented to the Association for Education in Journalism and Mass Communication, Communication Theory and Methodology Division, Portland, OR.

Pan, Zhongdang and Gerald M. Kosicki (1993). "Framing Analysis: An Approach to News Discourse," Political Communication, 10, pp. 55-75.

Sigal, Leon V. (1986). "Sources Make the News," in Manoff, R.K. and Michael Schudson (eds.), Reading the News, New York: Pantheon (1986), pp. 15-38.

Snow, D.A., E.B. Rochford, S.K. Worden and R.D. Benford (1986). "Frame Alignment Processes, Micromobilization and Movement Participation," American Sociological Review, 51, pp. 464-481.

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Packaging Dissent: Radical Environmentalism, Television News, and Ideological Containment

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Packaging Dissent: Radical Environmentalism, Television News, and Ideological Containment

In The Whole World Is Watching, Todd Gitlin charts the rise and fall of the new left in America, linking many of the movement's successes and failures to its portrayal in the mass media. In drawing his history to a close, Gitlin suggests that "All opposition movements to come would inherit this history, all the ambiguity and irony of it." (p. 246). The ambiguity and irony of that history is seated in the strange relationship between power holders, media managers, and power seekers. As Gitlin points out, members of the new left were attracted to, but eventually devastated by the spotlight the media create.

Some twenty years later, social movements still bear the burden of the historic events of the late sixties and early seventies. At that time, television coverage of the turbulent events at home and abroad permanently altered the way those in power (as well as those who would like to be) think about the media. Any social movement that wants to have a significant impact on American society must take into account its relationship to the country's vast network of local and national media.

One such movement is Earth First![1], an environmental group that has been attempting to alter the way Americans interact with creation around them. This paper focuses on Earth First as a contemporary social movement trying to survive and achieve its goals in a world of mediated images. Specifically, the goal here is to examine network television news coverage of Earth First

after a series of crucial incidents in a season of activities the group called "redwood summer." The investigation of this brief history is argued to be fertile ground in which to produce a better understanding of the way the media package not only stories, but the ideas themselves that are presented in news stories.

Summers Revisited and Summers Ignored

The name coined for the Earth First event is, of course, reminiscent of another campaign to bring about social change, the "Mississippi summer" of 1964 . In the earlier event, college students were invited to gather in the South for a summer of civil disobedience. The goal was to dismantle the segregated social structure of the region. Redwood summer, some twenty-six years later, was an attempt by Earth First to halt the logging of old growth redwoods in California. Members of the environmental group traveled to college communities in the state trying to round up volunteers to invest in a summer of activism. One might easily suggest that Earth First borrowed the meaning of the earlier event with hopes of drawing a host of college students and the gaze of television cameras at the same time. Associating the summer event with a widely recognized historical media event seems like a reasonable strategy for gaining media attention.

When the first event of the season arrived, some three hundred protesters gathered in Eureka to block logging trucks. As forty four of those individuals were arrested, many shouted "The whole world is watching," harking back to the protests of the

sixties and seventies. Yet, the whole world was not watching. When news time arrived that evening, none of the networks ran stories about the events in Eureka. It seemed as if the protesters had been overwhelmed, made unnewsworthy by earlier events which crashed down around Earth First. By the time the actual protests arrived, the networks apparently saw little they could (in comparison) call news.

The events which made the protests seem anti-climactic occurred in May. Judi Bari and Darryl Cherney, both Earth First members, were driving through Oakland when a bomb exploded in their car. Cherney was only slightly injured. Bari was hospitalized. Shortly after caring for the medical needs of the two environmentalists, police arrested both on charges of possession and transportation of an explosive device. Up until this point in the year, the networks had given no coverage to redwood summer activities. The next day, ABC, CBS, and NBC all aired packages about Earth First and the events which had occurred. Not much coverage followed, however. On July 5, as a part of its "Assignment Earth" series, NBC aired a feature package on the environmental group and some of its summer activities. For the networks at least, that was the end of Earth First's season of discontent.

News, Objectivity, and Selectivity

Certainly at one of the most facile levels of news analysis we can examine the lack of coverage the networks gave to Earth First and its campaign. Numerous scholars have alluded to the

structural constraints within the media and their effect on the product that the audience sees. With each moment, millions of Americans experience life at their own pace and through their own senses. How is a news organization to determine which of those events are "news"? Clearly one of the simplest means is to set up standards for the industry that are not questioned, structures for the journalistic endeavor which become a crucial part of the identity of the newsgatherer. Gaye Tuchman (1978) speaks of the "news net", designed to allow journalists to systematically gather the day's events. It is a net rather than a blanket for obvious reasons. The net presumes that news organizations have no desire to waste time catching and throwing back little stories. Such activity wastes valuable time and money, crucial variables in the successful operation of a news organization in a capitalistic system. As Tuchman (1978, p. 21) puts it, "Today's news net is intended to catch big fish."

But, the question on the mind of any social movement is, "Why isn't our story among the big fish? The social problem we are announcing (or the social change we are advocating) is the most important issue on the planet." Such advocacy groups clamor for coverage while often lacking understanding of the logic of news work. They see little reason their story should not be thoroughly covered by the media. After all, they may be fighting a prolonged struggle for purposes they feel transcend the petty concerns of the moment. Yet, in Tuchman's (1978, p. 134) words, the "tempo of newswork, including covering a different story every day, mandates an emphasis on events, not issues." A major

fiber in the news net is the web of facticity, a complex interrelationship between the numerous observations the reporter must make in putting a story together. In threading this web, the reporter is required to start at events, not issues. Underlying social currents are less important than manifest political action, and discussions are much less reportable than altercations.

To journalists, this logic (to the extent that they consciously acknowledge it) is a justification for their professional activity and a protection against other power holders in society. To critical media scholars, it is one of the more manifest ideological dimensions in news. Regardless of the perspective one takes, one can admit that in the decisions as to "what is news" and the decisions as to how that news will be relayed to the public, journalists make decisions based on pre-determined, seemingly objective criteria that are crucial to their profession. By following their own predetermined guidelines, journalists aspire to gain the confidence and evade the suspicions of the newsmakers and publics they serve. As Allan Rachlin (1988, p. 14) says of the news media as a legitimate body, "That is, it is by complying with society's sense of reasonableness and fairness that it upholds its privileged position to determine what is reasonable and fair."

Because journalism as a cultural institution takes upon itself the role of dealing with world events as mere facts, journalists are given what Gitlin (1980, p. 255) sees as "relative autonomy" in the broader power structure. Within the

bounds of its mandate, members of the media community may move freely and pursue their "neutral goal of informing the public" (p. 256). Rarely is there need for a higher power to tell the media what they must or must not cover.

To the three networks, then, the earlier decisions to exclude coverage of the Redwood Summer activities were most likely based on the networks' perception that the group lacked an event. A group of environmentalists touring college campuses to recruit volunteers for summer activism might in some terms be considered an event, but apparently not one which would get caught in a news net intended for "big fish."[2] It is only when a bomb exploded in a Subaru in Oakland that the fishers of news decided their catch was fit to keep. At such a time, the networks had been given a peg on which a very good television news story could be hung. Once the initial fact was known--a bomb certainly had exploded--any other facts could be gathered from respectable news sources. On May 26, Earth First made the news in a big way.

Identifying The Catch

To better understand the ideological dimensions of the news, we must move beyond the networks' decisions to air stories about the bombing and not air stories about the group's other summer activities. We must also examine the content of the stories the networks did choose to run. The institutional legitimacy of the press is dependent on the public's perception that it deals with its subjects in a balanced manner. To the general public, this is as important as (or, perhaps more important than) actual story

selection. In both of these areas, the press must maintain it's legitimacy by honoring its own standards. As Weaver (1972) states:

> They do so by claiming their "professional" and "fair" use of the power. By this they mean that their intention and, in general, their achievement is to give equal time, equal space, and equally considerable attention to all popular candidates and all popular views on all popular issues. The media recognize that this strategy will not protect them from the wrath of political extremes, whose views they systematically ignore. But they do hope it will prevent them from offending the great majority, who presumably will see in the formula of "fairness" at least a rough approximation to "objectivity. (p. 59)

Weaver's comments reflect those of other media scholars such as Gans (1972). Gans argues that the ideological focus of the media allows them to limit and cope with criticism. Part of that focus, as explained above, is achieved through the systematic exclusion of some news stories. But another portion is dependent on the content of the stories that do get aired. And, it must be noted that even the web of facticity cannot prevent the "political extremes" from reaching the news media on occasion. When Earth First members are involved in a bombing (a very newsworthy event), they make the news. How they are presented therein is determined by some of the same professional standards of news work that had earlier prevented the protest group from receiving any coverage at all.

Yet, one of the first things we might note when examining the networks' portrayals of the bomb incident, is journalists' ability to sometimes evade their own standards. Starting from the top of each news story, the first thing we hear is indeed a fact, but a fact that is presented within the framing caused by labels

which are not facts. In all three of the anchor lead-ins, the word "radical" was attached to the words "environmental group" or the word "environmentalists." The first line of each lead-in is supplied below.

> ABC: In Oakland, California today, two members of a radical environmental group who were injured when a bomb blew their car apart yesterday have now been arrested.
>
> CBS: Two members of a radical environmental group were injured in Oakland, California yesterday when a pipe bomb tore their car apart.
>
> NBC: In Oakland, California tonight, two radical environmentalists are under arrest, suspected of possessing explosives.

The Associate Press Stylebook (French, 1987, p. 177)--which on its cover claims to be "The Journalist's Bible"--suggests that journalists not use the word radical. "In general," it says, "avoid this description in favor of a more precise definition of an individual's political views." Regardless, all three networks chose to use the term. In doing so, they placed the group outside of the norm. The Sierra Club, Audubon Society, and other well established lobbying groups are presumed to be the mainline, while Earth First somehow falls outside of some pre-delineated boundary.

Critical scholars have long noted the power of the media to label and thus marginalize divergent social movements. Milliband (1969, p. 238), argued that the media have the power to picture views which fall outside the mainstream as "curious heresies" or "irrelevant eccentricities," both of which could be easily dismissed. Yet more recent scholarly work has recognized the complexity of this labeling process and the occasional compliance

on the part of a social movement. That is, sometimes it is truly the news organization that labels one group within a spectrum of groups, but sometimes the groups themselves play a part in that labeling. As Gitlin relates in the case of the new left in the sixties, "For their part, many antiwar militants in SDS and other groups had been just as interested in distinguishing themselves from moderates as moderates had been in distinguishing themselves from militants." In some instances at least, this seems to be the case with Earth First and other groups. For example, some Earth Firsters disparagingly refer to the established environmental groups as "the Big Ten" (Foote, 1990, p. 25). Also, the later "Assignment Earth" package on Earth First was precipitated by a judge's decision to turn down a request by "other environmental groups" to block Earth First ("the militant environmental group") from holding their annual meeting in Montana.[3] The wording that brackets some groups in society is produced by those groups, other groups, and the news producers.

But Earth First's distinction in the television medium does not come solely through use of wording, it also comes from videotape and sound. What followed the lead-ins listed above was in each case a video package which suggested how different Earth First is from any other environmental group the home viewer might have ever seen in the news. Once again, it must be noted that for the networks to even consider putting a movement on television, the advocates must be involved in an event. Earth First members had done this--wittingly or unwittingly. First of all, Darryl Cherney states in one of the packages that "there are no couch

potato Earth Firsters." While most of us were home watching the news, members of the movement were involved in activities that had a very good chance of making the news. The newsmaking antics of Earth First allowed for a stockpile of video showing Earth Firsters at work. It is apparent that the networks themselves had used little of this footage, but had kept it on file. This file footage allowed for easy packaging once the actual news event (the bombing) took place. In addition, when the bomb went off in Oakland, news cameras were only minutes away. Two of the networks led their stories with shots of the twisted vehicle and the injured at the scene. The other network (CBS) also had this footage, but chose to introduce the two characters first through file footage. Then they showed us the bomb scene.

It is through the use of this and other video imagery that television news stories come to life, especially in the construct we call news packages. Television is obviously a visual medium and--to a degree at least--stories live and die in the minds of news producers based on their visual possibilities. As Gans (1979) puts it, "all suggested stories are automatically judged for whether they lend themselves to filming" (p. 158). This is not to say that soft stories with video are valued more than hard stories without video. As was suggested above, news people hold to a strong sense of standards. There are other long-standing criteria in story selection that determine the value of stories, and television news people are concerned about public accusations of sensationalism. Yet those in television news are well aware of the strengths of their medium.

Leaders of many of the social movements the medium covers are somewhat aware of those strengths too. They realize that the power of television news lies in its ability to convey emotion through visual imagery. It is commonplace to hear stories of protesters waiting for television cameras before they begin their protesting. But what newsmakers (those who are waiting for the cameras) often fail to realize about television journalism is that what is shot is not what is used, and an image has little value in itself. The value of images in the television medium will largely be gained through association and juxtaposition. Of course, the images that a newsgatherer shoots do not walk back to the studio and edit themselves. News producers need guidelines for editing news material just as they needed guidelines for gathering it. To continue a metaphor already adopted, newspeople have to use some discretion to net the news and bring it back to the studio. Once they arrive there they need a set of common assumptions on how to process the catch.

Cooking the News

The news producer in the studio needs some means of dealing with the abundance of images and soundbites that come spewing from field reporters in the same way that field reporters need some means of discerning which of the numerous events they see during the day are "news." Events that represent deeply rooted historical struggles which have developed over centuries must somehow be processed into two minute packages. As Epstein (1981, p. 126) puts it, television news might just provide the "clearest

case of the process by which reality is systematically reconstructed by news organizations".

The extent to which television news production is "systematic" might best be demonstrated by the amazing similarity of the three packages the networks aired the day after the bomb blast in Oakland. In Appendix A a transcript of each is provided. The number of shots which are similar in all three packages is somewhat astonishing given that the networks are independent and competing organizations.

This similarity is gained both in the field, and in the editing room. In both of those venues it is achieved through the reliance on legitimate news sources and locations. Both reporters and editors hold a respect for the opinions and responses of such news sources (police officers, firefighters, lawyers, business owners). In one respect, it is the reporter who has a greater control over the final production in that the reporter chooses what and whom to shoot in the field. The reporter thus has the opportunity to limit the field of voices the editor may choose from. Unless there is time to send out another field crew, the editor can only select from those voices which have already been interviewed. However, producers in news organizations have a degree of indirect control over this situation to the extent that they are bosses and reporters often answer to them. One must keep in mind that the field reporter whose work consistently necessitated a producer or editor to seek better sources of information would not develop a name for him or herself, at least, not a good name. Reporters quickly learn who authorities

are. They are people such as Lieutenant Mike Sims, of the Oakland Police Department. Sims is present in each of the networks' representations. In fact, he is given a sound bite by all three. The worker in the field realizes quite easily that a press conference held by the Oakland P.D. is worth some video footage. Such a legitimate source cannot be passed up.

Beyond, the conformity that comes from relying on legitimate sources, there is a certain degree to which the similarity in stories seems to derive from a common organization. Again, the networks need some means of dealing with the complex stories they are covering, a means of compressing them and packaging them into consumable entities. Tuchman (1978) suggests that the "news frame" is the means by which this is accomplished. When the story becomes newsworthy, the news organization needs to begin finding boundaries for it and determining parties within it. No matter how complex it is, there is a necessity to simplify the story by eliminating unimportant information and framing the news so that the consumer knows its boundaries.

Such an endeavor has an effect on both the broad subject of the story and the subjects (actors) of the story. Both need to be melted down to their simplest form. Earth First, a group which has a wide agenda of environmental and related political issues, becomes Earth First, the radical environmental group that wants to "slow down or stop the cutting of forests in the Northwest" (ABC). Or, perhaps, their goal is to "stop logging and development in California's redwood forests" (CBS). Another version says they wish to "slow timber cutting in California"

(NBC). None of the networks went beyond listing this single issue. None suggested the broader range of interest the group espouses. Once again, framing and simplification lead to a similarity of presentation. All three networks use very similar words to describe this protagonist (Earth First) and its goals and in all cases the final portrayal of the group is overly simplistic.

After the protagonist is determined and the goals can be simply stated, the news organization can begin determining antagonists. In this case, the primary antagonist seems to be clearly stated or implied in each of the packages. In the CBS package, Ron Allen states that "Both (Cherney and Bari) claim they've received death threats and been the target of attacks as tension with the timber industry increases." Jim Cummins of NBC claims that Earth First has "declared war on the logging industry." The ABC package does not specifically list the logging industry as an antagonist. It is probably understood as such, though, when we are told of Earth First's goals and the means by which they are said to be willing to reach those goals (e.g., tree spiking).

Of course, the conflict between Earth First and the logging industry in California is simply a manifestation of a greater long-term struggle between the environmental group and a number of adversaries. The environmental group is not simply an anti-logging organization. But the news media tend to focus on the representative events, not the broader picture. In the same way, when possible, they tend to focus on the representative people,

not the organizations for which those people stand. This is one more explanation for the sudden coverage given to Earth First when the bomb went off in Oakland. Cherney and Bari created a visual representation of Earth First which could be easily captured on video. This makes it easier to construct the story once the crew returns to the newsroom. What Gitlin (1980) refers to as the process of "certifying leaders," allows the media to get a handle on a movement. That which had previously been a cloudy environmental group now took on human form. What had previously been an amorphous organization now has flesh and blood.

This point is even further evidenced by the sound bites in the packages. The actual visual framing of sound bites in the packages replicates the more general framing of the story. There is a clear hierarchy in visual composition and camera distance. Those who are most involved in the story are most involved with the viewer. They are represented in close-ups and bust shots. Such is the case with three interviewed members of Earth First whose views were presented in soundbites. Each of them (George Shook in two of the packages and two unidentified females in the third) is shot in a close-up. Also, Susan Jordan, the lawyer for Cherney and Bari, is presented in this manner. Yet Mike Sims, a third party who would be considered more distant from the story, is presented differently. In all three packages, he is composed in a medium shot. This accomplishes two things. For one, it presents him as one not directly involved in the conflict the story is presenting. The conflict is between Earth First and the

logging industry. Sims is presumably trying to settle the conflict, not be a part of it. The second thing the framing of the shots of Sims accomplishes is that it allows him to be framed by the row of microphones attached to the podium at which he is standing. This allows for an air of authority which will be discussed later. Most important at this point is the progression from closeup of Earth First members to medium shot of police officer.

Finally, in each package there is a visual "standup bridge" in which the news reporter has recorded a portion of his narrative in the field (the combined audio and video from the field are called sound on tape, or SOT). All three reporters apparently shot their standups at police headquarters. Rooney and Cummins chose to shoot theirs in front of the building where Earth Firsters were camped out. Ron Allen is standing in a parking lot in front of police cars. It appears that this is the back of the same building. Though the similarity in location of the shooting is interesting, it is perhaps less crucial than the fact that once again the bodily composition of the three shots is so similar. Each of the standups is in a medium shot. The shots are all of a wider angle than the shots of Sims, which are all of a wider angle than the soundbite shots of Earth First members. Tuchman (1978) offers the following explanation of the relationship between angle of view and audience perception:

> Reporters filmed at the scene of a story are clearly portrayed as being removed from, and uninvolved in, the action sequences. Both reporters and newsmakers are framed as officials and professionals, as one would see them if one sat in front of their desks. These social meanings--seeming

> representations--are achieved by filmic conventions regarding camera angle. The framings are designed to be neither intimate nor distant. (p. 116)

The reporter, then, is involved in the story only to the extent that he/she is on the scene as narrator. The involvement is not as deep as the involvement of someone who is investigating the events (Mike Sims), and certainly not as deep as those who are a part of one of the groups involved (George Shook). In some ways, the reporter is a part of the framing device, carefully controlling the bounds of the story. As if the story were some sort of mystery presentation, the reporter's voice indicates the directions we will proceed in our investigation as a viewer. And, the reporter's image is such that we are lead to understand he is working on uncovering all of the facts for us, but is in no way directly involved in creating them. The facts are supposed to unfold in front of us in a logical matter, but the reporter is not supposed to be a part of the logic. Ericson, Baranek, and Chan (1987, p. 335) discuss how they found a manual in one news room that directed news producers "to treat news as theatre." It is little wonder that some television news producers see themselves as telling a "fictive story" when they put a package together (Epstein, 1981, p. 129). At the same time, one might question how the "moral of the story" (a news package story) reaches the viewer and what kind of impact it has.

The Ideology of Packaging

The term "news package" tells us a great deal about journalism. The terminology is at the same time appealing and

disturbing. On the one hand, a democracy necessitates news that is readily available for its citizens, information that can be grasped by all regardless of their status. On the other hand, we can understand the drawbacks of having an elite crew determining how the majority hear the news.

Certainly critical theorists have legitimate complaints about the tendency for television to frame news and oversimplify issues. This has been addressed to a certain extent above. Earth First is far too multi-faceted to be understood thoroughly in two minutes. So, the news organization focuses on it as being a singularly driven movement. Producers jump at an opportunity to use Bari and Cherney as representatives of the group partly because of their unfortunate involvement in the bomb incident, but also because they match our preconceptions of what a radical environmentalist would look like (dressed in jeans and a T-shirt) and act like (playing folksy songs on a guitar and fiddle). It is little wonder that George Shook, with his T-shirt, long hair, and wire framed glasses was picked out of crowd by two of the three networks and chosen as a sound bite representative. He fits the mold quite well.

Yet police officers, lawyers, and newsmen fit into molds quite nicely also. It is at this level, media theorists claim, that much of the ideological packaging of the world occurs. In presenting a world which is predictable and somewhat orderly, the media maintain a status quo. Not a status quo of peace and inactivity, but a status quo of minor skirmishes and diversions from the norm. Gitlin (1980) argues that the owners and managers

of the major media are committed to such an embattled world to the extent that they are committed "to reform of selected violations of the moral code through selective action by state agencies" (p. 258). That is, the media are far too ready to find minor conflicts that exist in everyday life and then suggest that those conflicts can be resolved by legitimated authorities.

It is worth noting that two of the packages about the Earth First bomb incident ended with references to such authorities. The ABC package suggested that the courts would have to decide whether Cherney and Bari were perpetrators or victims. In the CBS package, Ron Allen claims that the police are the ones to determine whether or not the two are telling the truth. Both of those packages utilized video to reinforce their audio tracks. The ABC piece closed with a shot of an investigator peering into the wasted automobile (as if to say he was "looking into" the situation). The closing video for the CBS package also included shots of investigators. In this package the footage follows immediately after a sound on tape shot where Cherney strums his guitar and proclaims "While the environmentalists are going to jail, the people who are destroying the earth are roaming free. We're going to change that." Clearly, the implication is that Cherney is <u>not</u> going to change that. Ron Allen follows Cherney's claim, saying, "<u>But</u> [my emphasis] police insist evidence from the bombing points only at the two people in the car.", indicating the supposed invalidity of Cherney's statement. It should be noted that the "but" in Allen's track does not refer back to the reporter's previous track which was two sound bites ago. It

refers directly to Cherney's statement. While Cherney claims that the day will come when destroyers of the environment will go to jail, there is (according to the news report) little evidence that such a day is coming. Instead, the implication is that Cherney himself is going to jail.

The more subtle point the story is making is that the Earth Firster lacks legitimacy and authority and thus has no right to say such things. Allen makes that clear. So, who does have such a right to make such claims? Allen makes this clear also. The police and the courts do. Brian Rooney reinforces this point in his package when he suggests that the "court will decide whether the two are terrorists or victims." The legitimacy of the police and the courts is thus reinforced. As suggested earlier, Mike Sims as a Lieutenant in the Oakland Police Department would have the right to make the type of claim that Cherney attempted to make. His legitimacy is demonstrated in each of the packages in that he stands behind a podium full of microphones and the camera stays more distant from him. He is trusted to deal with the problem in the same way that the news gatherer is trusted to tell us about it. The trust which we impart on these individuals gives the stories a sense of closure, even though we do not know for certain who placed the bomb in the car. The conflict is tied up in the end, much like the "fictive story" Epstein referred to above. Or, more specifically related to framing and authority, to use Gitlin's (1980) words "a certified social problem and a legitimate solution are ordinarily framed together" (p. 272).

This makes not only for simple subject matter, but also simple closure to that subject matter.

The Ideology of Frame Selection

The suggestion that there is a subtle closure to these news packages should lead us to believe that the viewer will come away from the news experience in a rather passive state. The viewer's interest in the story is built up by the portrayal of conflict but soon let down by the indication that everything possible is being done to solve the problem. As Mark Levy (1978) observed in his study of television news audiences, most felt good about the fact that the world was a safe and secure place and "demanded no immediate action on their part" (p. 13). The simplistic presentation our society of a protagonist, an antagonist, a conflict and a resolution creates in the mind of the viewer one more television drama which is wrapped up quite handily when the package ends. The wrap-up is dependant on our trust of authorities. With closer inspection, our respect for the bodies in which we have placed our trust will have a big impact on how comfortable we will be when we see news consistently packaged to place the conflicts of in the laps of such authorities.

Notes

[1]The group traditionally carries an exclamation point in its name. For purposes of simple punctuation in this paper, the name will be used without that marking.

[2]Clearly local affiliates or the network had shot footage of Earth First prior to the bomb incident. The networks had not put this footage to use, but it was available when Earth First was finally caught in the news net.

[3]The tendency to distance Earth First from other environmental groups was less evident in the television reports but very evident in several print reports of Redwood Summer (e.g., Bishop, 1990; Carpenter, 1990). This subject seems worthy of more study given the nature of labeling in news and the insonsistent views of media theorists.

[4]This was not an uncommon sentiment in Northern California, Oregon, and Washington. Some print versions of this conflict used this as one of their frames.

APPENDIX

CU = Closeup
MS = Medium shot
LS = Long shot
SOT= Sound on tape
CG = Character generated graphic (lower 1/3)

VIDEO	AUDIO
ABC NEWS	
Peter Jennings (In Studio)	In Oakland California today, two members of a radical environmental group who were injured when a bomb blew their car apart yesterday have been arrested. Police say the victims were also the perpetrators Their friends call it a frame-up Here's ABC's Brian Rooney
(1) LS Smashed car	The car was bent and twisted by the force of the explosion. 33 year old Darryl Cherney had only minor injuries, but 40 year old Judi Bari was seriously hurt and had to be removed with power tools. The Oakland Police say the bomb belonged to the two people in the car.
(2) CU Cherney with a bandage over face	
(3) CU Bari	
(4) LS Firemen	
(5) LS Bari	
.....	
(6) MS Sims (SOT) (CG- Lt. Mike Sims, Oakland Police Dept.)	"The decision to arrest was based on the placement of the device

	in the vehicle and the nature of its construction, uh... Physical and other evidence that we've developed..."
.....	
(7) LS Ext. house (8) Van (9) Earth Firsters being arrested (10) CU metal spike (11) MS Saw (12) LS Earth First Activists (13) " " New angle	Police said they've found more evidence supporting the charges in a house and a van they searched. Earth First is a radical environmental group known for acts of protest and vandalism, such as driving metal spikes into trees. That could cause a saw to break and hit someone. Earth First's goal is to slow down or stop the cutting of forests in the Northwest
.....	
(14) MS Rooney (SOT) (CG-Brian Rooney, ABC News)	"Although some of them have engaged in the destruction of property members of Earth First insist they are a nonviolent movement and would never consider injuring people."
.....	
(15) CU Shook (SOT) (CG- George Shook, The Earth First)	"They wouldn't have had anything to do with bombs anywhere on earth."
.....	
(16) CU Letter	Members of the organization

previously reported getting threats including this picture of

(17) CU of said photo

Judi Bari with a gunsight drawn over her face

(18) LS Man looking into the smashed car

But the court will decide whether the two are terrorists or victims. Brian Rooney, ABC News, Oakland, CA.

CBS NEWS

Leslie Stahl
(In Studio)

Two members of a radical environmental group were injured in Oakland California yesterday when a pipe bomb tore their car apart. Today they were arrested and accused of building the bomb. Ron Allen has more.

(1) MS Cherney singing (SOT)

"Tell me, where are we gonna work when the trees are gone?"

(2) LS Bari and Cherney singing
(3) MS Bari playing fiddle
(4) LS Cherney and Bari

Darryl Cherney and Judi Bari came to the bay area last month recruiting for Earth First's summer campaign to save California's redwood trees.

(5) LS Wrecked car
(6) LS Door
(7) LS Car
(8) LS Car

But now police say the activists who were victims of a car bomb yesterday put the bomb there themselves

(9)MS Sims (SOT) (CG- Lt. Mike Sims, Oakland Police Dept.)	"The decision to arrest was based on the placement of the device in the vehicle, the nature of its construction, physical and other evidence we developed by the investigators"
(10) LS Cherney getting helped out of car (11) LS Firemen at scene (12) LS Bari carried on stretcher (13) LS Woman playing dulcimer (14) LS People looking at sign (trees not bombs)	Cherney, who was slightly injured, is now jailed on charges of possession and transportation of an explosive device. Bari, who underwent surgery last night for her injuries, was booked at the hospital. A protest vigil is underway by Earth First supporters who say they've been framed.
(15) CU Woman (SOT)	"They are people who are committed to nonviolence."
(16) CU Woman (SOT)	"I think it's an attempt to sabotage our movement".
(17)LS Activist roadblock (18)LS Hanging sign on log truck (19)LS Picketing log road (20) LS Golden Gate Bridge (21)LS Earth First	For years Cherney and Bari have been involved in Earth First's militant tactics to stop logging and development in California's Redwood Forest. Last Month Cherney was arrested when Earth First hung a

Activists walking on bridge	banner from the Golden Gate Bridge.
(22) MS photo (23) CU Gunsight drawn on photo	Both claim they've received death threats and been the target of
(24) CU Letter	attacks as tension with the timber industry increases But Oakland Police, well aware of the death threats see the bomb blast as a separate matter.
.....	
(25) LS Oakland Police (SOT)	"What we are saying is that we don't believe it's connected to the event at this point."
.....	
(26) MS Allen (SOT) (CG- Ron Allen, CBS News)	"Police say they have not determined exactly why the two activists had a bomb, but for reasons. authorities would not elaborate on they seem convinced the bomb was going to be used against a specific target."
.....	
(27) CU Jordan (SOT) (CG- Susan Jordan, Attorney of Judi Bari)	"I think these kids are unpopular. I think that it's easy to charge somebody who has an unpopular reputation".
.....	
(28) CU Cherney sings (SOT)	"While the environmentalists are going to jail, the people who

are destroying the earth are roaming free. We're going to change that."

(29) LS Investigators
(30) LS Police
(31) MS Agent
(32) LS Car

But police insist evidence from the bombing points only at the two people in the car. Ron Allen, CBS News, Oakland.

NBC NEWS

Jane Pauley
(In Studio)

In Oakland, California tonight, two radical environmentalists are under arrest, suspected of possessing explosives. Their car was ripped apart by a bomb. They claim they are victims, not criminals. More from NBC's Jim Cummins.

(1)LS Smashed car "Oakland, California" lower 1/3
(2) CU Bari
(3) LS Bari on stretcher

Darryl Cherney and Judi Bari were injured by a pipe bomb that blew up their car in downtown Oakland.

(4) MS Cherney and Bari sing "August, 1989" lower 1/3
(5) LS Cherney and Bari sing

Cherney and Bari are leaders of Earth First, a radical environmental group that has declared war on the logging industry

(6) LS Van

The police claim this van near the bomb scene also belongs to the group. The bomb squad found a suspicious package and detonated it.

(7) LS Detonation

Today police arrested the two

environmentalists for possession of an explosive device.

.....

(8) MS "Lt. Mike Sims" "Oakland Police"

"We suspect they were in possession of the device with intent to use it. But we don't know in what form that use would take shape."

.....

(9) LS Lady playing dulcimer

(10) LS supporters

(11) MS Sit in

Other members of Earth First vowed to camp outside police headquarters until Bari and Cherney are released

.....

(12) CU "George Shook" "Earth First" lower 1/3 (SOT)

"I'm saying for sure they wouldn't have put the bomb in the car. They wouldn't have anything to do with bombs anywhere on earth".

.....

(13) MS Jim Cummins (SOT) "Jim Cummins" "Oakland, California" lower 1/3 Police headquarters

"Bari and Cherney claim they've received numerous death threats because of the environmental activism. Police say they've investigated these and have no other suspects in the bombing."

(14) LS Activist behind rocks (SOT)

Earth First!

(15) LS Activist and semi-truck

Their is no question members of Earth First are radical

.....

(16) MS Man (SOT)

"I'd give up my life to save a tree."

.....

(17) LS Activists scuffle with logger (18) MS Activists scuffle with logger	They block roads, chain themselves to logging equipment, drive steel spikes into trees to break the saw They have made enemies in the logging industry.
(19) MS People on gate (SOT)	"I don't know what the hell is wrong with you people. Are you crazy, on drugs, or what?"
(20) MS Bari (21) LS Firemen (22) LS Cherney on stretcher (23) LS Bari on stretcher	Bari once claimed her car was run off the road by a logging truck. She and Cherney were in the Oakland area to drum up support for Redwood Summer, a campaign to slow timber cutting in Northern California. Their supporters claim the bombing was an attempt to discredit that campaign. Jim Cummins, NBC News, Oakland.
(24) LS Car (25) LS Car	

References

Bishop, K. (1990, May 26). Environmentalists hurt, then held, in blast. New York Times, pp. 1, 10.

Carpenter, B. (1990, September 17). Redwood radicals: Is environmental extremism doing the cause more harm than good? U.S. News and World Report, pp. 50-51.

Entman, R. (1989). Democracy without citizens: Media and the decay of American politics. New York: Oxford University Press.

Epstein, E. (1981). The selection of reality. In E. Abel (Ed.), What's news: The media in American society (pp. 119-132). San Francisco: Institute for Contemporary Studies.

Ericson, R., Baranek, P., & Chan, J. (1987). Visualizing deviance: A study of news organization. Toronto: University of Toronto Press.

Foote, J. (1990, February 5). Trying to take back the planet. Newsweek, pp. 24-25.

French, C. (Ed.). (1987). The Associated Press stylebook and libel manual. Reading, MA: Addison-Wesley.

Gans, H. (1972). The famine in American mass communication research and media effects: Comments on Hirsch, Ischman and Gecas. American Journal of Sociology, 77, 219-232.

Gans, H. (1979). Deciding what's news: a study of CBS Evening News, NBC Nightly News, Newsweek, and Time. New York: Pantheon.

Gitlin, T. (1980). The whole world is watching: Mass media in the making and unmaking of the new left. Berkeley: University of California Press.

Glasgow University Media Group. (1976). Bad news. London: Routledge and Kegan Paul.

Glasgow University Media Group. (1980). More bad news. London: Routledge and Kegan Paul.

Judge refuses to bar group from meeting in U.S. Forest. (July 6, 1990). New York Times, p. A 10.

Levy, M. (1978). The audience experience with television news. Journalism Monographs, 55.

Lichter, S., Rothman, S., & Lichter, L. (1986). The media elite. Bethesda, MD: Adler and Adler.

Milliband, R. (1969). The state in capitalist society: An analysis of the western system of power. New York: Basic Books.

Rachlin, A. (1988). News as hegemonic reality: American political culture and the framing of news accounts. New York: Praeger.

Tuchman, G. (1978). Making news: A study in the construction of reality. New York: The Free Press.

Weaver, P. (1972). Is television news biased? Public Interest, 26, 57-74.

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Dimensions Influencing Risk Perception:

The Case of Lung Diseases:

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Dimensions Influencing Risk Perception:

The Case of Lung Diseases.

People often do not have accurate information about specific risks. For example, large numbers of Americans believe that nuclear power plants can explode like nuclear bombs (Slovic, Fishhoff, & Lichtenstein, 1980). More generally, researchers have found that people tend to overestimate the risks of dramatic or sensational causes of death, such as nuclear power plant accidents and homicides, and underestimate the risks of undramatic causes, such as asthma, emphysema and diabetes, which take one life at a time and are common in non-fatal forms (Covello, 1989). The latter, represents a greater risk for the population because less caution is taken. Ferguson, Valenti, and Melwani (1991) state that people who are not averse to a risk present problems for the risk communicator.

It is plausible to say, therefore, that because of its relevance risk perception is at the heart of the risk communication process. The combined effort of the elements (e.g., media, government, industry, special groups) involved in communicating risks to the general public influences how a risk is perceived, and consequently the reaction that it generates (Kasperson et al., 1988). Receivers are exposed to a persuasive message in the hope that they will be influenced by the information it contains (Fishbein and Ajzen, 1981).

However, Fishbein and Ajzen (1981) called attention to the fact that most communication and persuasion research has focused on factors that influence the effectiveness of the message after it has been constructed, while the construction of these messages is in general left to a more intuitive device of the communicator. Although risk perception can be seen as an interaction of receivers' evaluation of the risk and the components of the risk message, researchers have found that the message contents (in this case a graphic) were the most responsible for subjects' lack of "hazard-response consistency" (Weinstein and Sandman, 1993). In order to influence people's perception of a risk, a risk message has to consider which are the underlying factors contained in the specific evaluation of that risk.

Profiting from previous research findings in risk perception and persuasion, this paper suggests a simple methodology for the construction of messages aimed at influencing people's perception of risk, more specifically, the risk associated with lung diseases, which is one of those undramatic underestimated causes of death.

A simple model of risk communication effects is introduced in Figure 1; the connection among the items is not meant to demonstrate direction of influence, but interaction between nodes. For example, although communication may not, by itself, modify people's behavior, it is very likely to influence people's attitudes, or at least prime attention to a potential problem by interacting with risk perception; which interacts with attitudes

and behavior that may lead to action. The basic assumption of this model is that most of our beliefs are a result of an inferential process, which is influenced by the information we have (Fishbein and Ajzen, 1981).

The model proposed is divided into two parts: 1) process: defines the steps considered relevant for the risk communication process to induce action; and 2) means: which are the most important internal aspects of each of the process. Means can also be considered as the identity of the individual process it is connected. As the discussion proceeds the connection between process and means will become clearer.

The paper first introduces, briefly, the possible effects of risk communication, then discusses risk perception, and finally presents some of the results from a study and discusses how it can be applied to risk communication.

Risk Communication Effects

Risk communication is directly connected to the dichotomy of risk acceptance / risk avoidance. As research in this area suggests, the participants in risk communication--the media, the government, scientific experts, the industry, and the general public-- have different goals, points of view, and prior information about the issues under consideration (Otway & von Winterfeldt, 1982; Wynne, 1984). As a result of these differences some of the participants (experts and government) are interested in keeping the public informed about risky issues, based on the

premise that information will facilitate acceptance; whereas other participants (the general public and media) are interested in the same information in the search for a risk-free society, and thus are seeking risk avoidance.

The effect of risk communication is captured by Kasperson et al. (1988), who affirm that "Despite the expenditure of billions of dollars and steady improvements in health, safety and longevity of life, people view themselves as more rather than less vulnerable to the dangers posed by technology" (p. 177). This perception may have led to what Laird (1989) called the "decline of deference": "[A] set of broad social and political trends characterized by the public's alienation from and distrust of authoritative institutions" (p. 543). This in turn prompts public reaction against government decisions (e.g., location of hazardous waste treatment plants) and mistrust of information because "[P]eople have lost confidence in every profession and institution associated with risk management controversies; science, government, and business" (Laird 1989; p. 547). As a result of this mistrust useful information may be disregarded, increasing the threat posed by those ill-perceived risks.

Although most of the time risk communication is related to a specific issue, its effect can easily expand and reach other spheres of government and industries, generating greater damage on the credibility of those institutions. Therefore, as Keeney and von Winterfeldt (1986) pose "[R]isk communication is itself a decision problem ... The risk communication decision can be structured in terms of who is responsible for making the

decision, what the risk communication objectives are, and what possible strategies exist for implementing them" (p. 417).

The connection between risk communication (the process) and risk messages (the means) can be better understood if the objectives of each is considered: risk communication goal is to provide, to those involved in the risk matter, a possibility of an adequately informed decision about which action is more appropriate, within the limits of available knowledge; whereas the goal of risk messages is to persuade action, influence beliefs, or increase awareness of a problem (National Research Council, 1989).

Risk Perception.

The general goal of risk communication is to improve knowledge and thus to change perceptions, attitudes, and behaviors of the audience. However, risk perception, a necessary step for behavior change, is a very complicated matter, which has been demanding a lot of effort of researchers from several areas.

Risk perception can be divided into two categories: objective and subjective. The former refers to the product of scientific research, primarily public health statistics, experimental studies, epidemiological surveys, and probabilistic risk analysis. The latter is related to how lay people interpret the above information (Fishhoff, Watson, and Hope, 1984). Svenson (1988) suggests that this distinct perspective is a result of different experiences, values and knowledge. Experts and lay

people build dissimilar mental models that lead them to interpret risk activities in a very different fashion.

There is, however, one aspect of risk perception where lay people and experts have a common ground: overconfidence in judgment. Slovic, Fishhoff, and Lichtenstein (1979) presented several examples demonstrating expert and lay people failing to realizing how little they knew, and how much additional information was needed to make a good decision. They attributed those failures to a "particularly pernicious aspect of heuristics" (p. 18).

As cognitive psychologists Tversky and Kahneman (1974) have pointed out, individuals rely on a limited number of heuristics that are useful in reducing the complex task of assessing probabilities and predicting outcomes. Research on risk analysis has demonstrated that individuals' judgments under uncertainty are influenced largely by these heuristics that are not, in general, considered either by experts or by lay people.

Tversky and Kahneman (1974) describe three heuristics that are likely to affect an individual's judgment in general: representativeness, or the fact that most judgments are made based on stereotype rather than real probabilities. For example, to answer the question about the probability that B will cause A, people will rely on the degree that A is representative of, or a stereotype of B, rather than rely on a more scientific causal model: if B then A. Availability, the perceived probability of an event, is a result of the ease with which we can remember similar events, factors like the ease with which a category of an event

can be retrieved, and the imaginability of the event, affect the judged probability of occurrence. Anchor and adjustment refers to the notion that in making estimates people often choose an initial anchor and then adjust that anchor based on acquired (or retrieved) knowledge of a specific event. For example, two groups of high school students were given 5 seconds to compute 1x2x3x4x5x6x7x8 and 8x7x6x5x4x3x2x1. The first group mean result was 512 and the second 2,250 (the correct result is 40,320). The difference observed is due to the fact that to rapidly compute the result the students computed a few products first and then estimated the remaining, thus, in this case, the first group started with a lower value and so got a lower answer (Tversky and Kahneman, 1974).

Press coverage of risk events supplies the public with vivid information such as images of catastrophes, or threatening forecasts that makes the event more memorable, easier to classify in a stereotypical manner, and provides an initial anchor of the risk involved that is very likely to bias subsequent judgments. For example, Combs and Slovic (1979) compared subjects' estimated rates of death from a variety of causes, to newspaper content. They found that subjects' personal assessment of risks reflected the violent world of newspaper content, which was a grossly distorted version of reality. By the same token, less visible causes of death are underestimated by the population.

However, there are also relevant individual traits that distinguish attitudes towards risks. Researchers have identified factors, like sensation seeking, that are major modifiers of risk

behaviors, as for example drinking and driving. Donovan and colleagues (Donovan & Jessor, 1978; Donovan & Marlatt, 1982) found that the major explanation for drinking and reckless driving is the expectation of alcohol ingestion and, mainly, degree of individual's sensation seeking, but not alcohol consumption.

Ferguson, Valenti, and Melwani (1991) state that people who are not averse to risk present problems for the risk communicator: "we are concerned with what we see as a much more difficult problem: reaching a public of risk takers with messages about risks to be avoided" (p. 2). In order to deal with this problem their research identified five groups of risk takers: adventurous, impulsive, rebellious, physical, and unconventional. Marked differences were not found among the groups on traits like age, marital status, and driving speed (all risk takers' definitions were associated with the young, single, and speeders). Males scored higher than females in all groups, except for impulsiveness, where women scored higher. What distinguishes these risk takers from each other (and from risk averse individuals) is how they interact with information and mainly with the factors related to risk. For example, Ferguson et al. (1991) suggest that the adventurous type enjoys new and exciting things (less familiarity with the risk is attractive); the impulsive type acts without thinking and is carried away (involuntarily of the risk is a prominent factor); all other types of risk seekers have also distinguishing characteristics that are likely to interact with the risk traits. Therefore, good

risk communication depends on an understanding of what the traits are of a particular risk and how they interact to influence people's attitudes, which is the wishful hope of all risk communicators.

Risk related factors.

Subjective risk perception is also affected by the way individuals identify some specific characteristics of the risk under evaluation. Researchers have identified several factors related to the risk issue that affect the outcome of risk perception (Slovic, Fishhoff, & Lichtenstein, 1982). These factors are expected to influence people's perception of the risk involved, and can be separated into two lists as presented in Table 1 (Sandman, Weinstein, & Klotz, 1987).

A risk that has most of the traits on the left column (less risky) is likely to be underestimated by the public; traits on the right column (more risky) are likely to cause overestimation of risk perception. For clarity let's compare two risks: nuclear power (usually an overestimated risk), and smoking (usually an underestimated risk). A smoker feels that it is his/her choice to be exposed to this risk, that smoking does not represent a potential catastrophic threat, and that smoking (hazards) have been known for years. Now, consider a nuclear plant in a neighborhood: individuals have not chosen to be exposed to it, it represents a potential catastrophic threat, and it is a relatively new technology. Considering two individuals--one a

smoker who does not live near a nuclear plant, and one a, non-smoker, who lives near a nuclear plant-- the former is exposed to a higher risk, although that is not the way the public will perceive it.

Despite the fact that several researchers agree with the risk qualifications introduced in Table 1, its application to the design of risk messages is probably almost non-existent. A possible explanation for this under-usage is, perhaps, the difficulty in understanding how the effects posed by these traits combine to influence risk perception. For instance, is a risk that has 3 traits from the less risky column and 3 traits from the more risky column, perceived to be the same level of risk as a risk that has 4 traits from each column? What if they don't have the same number of traits from each column? How can one item be compared to another from the same column, or across columns?

Only by understanding the relationship of risks traits and risk perception is that risk communication can be effective in modifying beliefs, attitudes, and behavior.

Beliefs, Attitudes, and Behavior

Although, social psychologists, in general, accept that there is a correlation between attitudes and behavior, the difficulty of determining the causal direction between these two constructs has led to the development of several theories (e.g., dissonance theory, Festinger, 1957; theory of reasoned action, Fishbein and Ajzen, 1975).For the specific case of risk communication an

efficient theoretical background is provided by the theory of reasoned action (Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980) because of its focus on behavior and outcome's evaluation.

This theory states that a person's attitude toward a behavior is simply that person's subjective judgment that performing the behavior is good or bad, desirable or undesirable. Therefore, individual's beliefs influence attitude towards a behavior. Fishbein and Ajzen (1981) suggest that one way to influence beliefs' change is by focusing on beliefs that are salient in the subject population. Those authors also stress the significance of message's focus on all important beliefs: "From our point of view a message can be effective in changing its intended target only if it influences these *primary beliefs* --that is, the beliefs that are functionally related to (or primarily determinants of) the target in question" (Fishbein and Ajzen, 1981, p. 346)[1]. To promote beliefs changes and influence decision making process a communication has to act on the process whereby beliefs are formed, i.e., on the traits that combine to form risk perception.

Decision-Making Process

In matters of health, or environmental risks it seems that risk perception approaches a conjunctive non-compensatory model (Einhorn, 1970). In this type of model a high value on one dimension will not compensate for a lower value in another; therefore, there is no tradeoff among attributes. A choice is

[1] italics from original

made based on a minimum standard set by the decision maker; anything that is above the standard is accepted. For instance, for personal risks individuals will only modify their behavior if a highly threatening situation exists (or is perceived); thus a minimum standard is set for risk acceptability. If a risk is greater than the threshold action is likely to occur, otherwise status-quo is preferred.

For the sake of understanding we can compare the decision of buying a car, that uses a compensatory model, with the decision of protecting oneself against a health hazard, that we suggest uses a non-compensatory model. The evaluation of a car takes into consideration that one car is more expensive (a negative trait) but is also more durable (a positive trait), therefore increase (or decrease) in durability may compensate for the increase (or decrease) in cost. However, in matters of health, an increase in, say, familiarity (that lowers risk perception) will not compensate for an increase in dread (that enhances risk perception). Thus, we suggest that a non-compensatory model seems more appropriate for health and environmental risk decisions.

Summary

Research on risk perception has identified that the content of the risk message is likely to be the major modifier of the risk perception. Weinstein and Sandman (1993) provide an example where two risks (radon and asbestos) that have a 25 fold

difference in actual risks to the population, generated only a slight difference in perceived threat because of the similarity of the message formats. They reinforce this point by mentioning that many presentation formats of risk messages failed to achieve hazard-response consistency, i.e., a perception of the threat that is correlated with the hazard represented by the risk. One possible explanation for this phenomenon is that each risk has its own identity (called risk perception in Figure 1), which is a specific combination of those traits introduced in table 1; the interaction between this combination and risk communication is likely to be deviant if the message's content is not adapted.

Previous research suggests that some combination of these "outrage factors" (Weinstein and Sandman, 1993) from table 1, may lead people to be more upset about hazard X than about hazard Y. The application of the non-compensatory model suggests that not all factors are relevant for all risks, moreover that there is no trade-off among factors, i.e., scoring high on one factor will not compensate for a low score on another factor, therefore factors are either on or off in the overall risk perception effect.

The discussion above leads to the conclusion that the important point for the construction of efficient risk messages is to understand the underlying dimensions that affect the perception of a particular risk specifically, how the "outrage factors" combine to form a risk perception.

The Study

Purpose

The purpose of this study is to investigate the underlying dimensions of risk perception associated with lung diseases. The identification of these dimensions is thought to facilitate the task of risk communication message development.

Procedure

Residents of North Carolina (475) were asked about their perception of risk related to lung diseases such as asthma, lung cancer, emphysema and tuberculosis. A statewide telephone survey was conducted, using students enrolled in two public relations classes as interviewers.

The interviewers identified themselves and the subject of the survey (survey about lung diseases in the state of North Carolina), as an introduction and invitation for participation to prospective interviewees. Individuals to be interviewed were selected by the nearest birthday date (forthcoming) in the household. The rate of acceptance in participation was over 75%; some interviews were terminated in the middle of its course, but no significant difference was found between complete and incomplete interviews in the common questions. Therefore all interviews are considered valid for the purpose of this study; the incomplete interviews have missing data on the unanswered questions.

The questionnaire was a set of 55 questions, and took an average of 12 minutes to be completed. Each student did an average of 8 interviews.

The questions considered of interest for the present report are related to the dimensions associated with subjective perception of the risk of lung diseases: a total of 10 questions (see appendix A). Nine questions were extracted from the dimensions introduced in table 1. The only factor from table 1, not included in the survey was "memorable" because it was considered difficult to explain to respondents, without inducing a response. All questions use a five-point scale, anchored by the "less risk" items on one extreme and the "more risk" on the other extreme.

The Results

Because our intention is to understand the relationship among the factors that have been identified as determinants of subjective perception of risk, and to identify the dimensions that underlie those factors, the use of exploratory factor analysis seems to be appropriate.

A principal components analysis was initially run, and the number of factors determined using the scree plot as a tool. Two factors emerged as the ideal solution. A factor analysis was then performed, asking for a two-factor solution. From this last analysis five variables-- familiarity, controllable, fair, focused in time and space, natural-- were identified as "trouble

variables," because they either have very low loads or loaded equally in both factors. A new run was executed, this time without the "trouble variables." Table 2 presents a description of the two factors, the variables, and the loads, after a varimax rotation.

Factor 1 was named dread, because of its association with the direct perception of the risk of lung diseases. Factor 2 was named self-efficacy because of its relationship with the perceived control of the risk by the individual. These two factors together explain almost 47% of the variance in the data set. Also, three of the variables--dread, chronic, and self controllable-- have more than 50% of their variance explained by the factor solution (see table 2).

Findings

It appears, considering the present results, that there are two dimensions that underlie the risk associated with lung diseases: one directly associated with the diseases--the dread factor--and one associated with the individual's capacity to influence its course--the self-efficacy factor. Both factors have already been identified as being of great importance for community health campaigns.

Maibach, Flora, and Nass (1991) state that "the most relevant antecedents for campaign planning are those that are known to affect behavior and are amenable to intervention" (p. 2). The two factors identified in this study fit this

description. The dread factor may be linked with the fear associated with these diseases, and the self-efficacy factor with the choices that individuals can make, how much effort they invest, their perseverance, and their resiliency following setbacks.

The contribution of the present study is the interpretation of what those factors represent. These results suggest that traits like familiarity, the epidemic control of the disease (controllable), the fact that it is a disease not related to specific segments of the population (fair), that its effects are immediate (focused on time and space), and that it is a natural disease not a man made one, can be downplayed by communicators.

On the other hand, traits like dread, acuteness (as opposed to chronic), and the risks of getting the disease (factor 1) are the relevant risk related factors that should increase risk perception. In all these three risk related factors respondents' score concentrated (see appendix 1 for percents) on the more risky column from table 1. Orthogonal to the dread factor is the self-efficacy factor, which is related to the decrease of perception of risk; respondents' score on self-control of the disease and voluntary of facing the risk concentrated (see appendix 1 for percents) on the less risky side from table 1.

Therefore, risk communicators interested in increasing population protection against the risk of lung diseases, should emphasize those two factors (dread and self-efficacy) concentrating primarily on the risk related factors identified. While the dread factor is likely to increase risk perception, the

self-efficacy factor should provide means for the audience to deal with the risk. The five risk related factors (dread, acuteness, the risks of getting the disease, self-control, and voluntary), and the way they group together provide, to communicators, means to increase the audience response to the risk of lung diseases.

Discussion

There are underlying dimensions that are specific to the risks under observation, and these dimensions may prove to be useful in the design of communication campaigns. For example, it may be the case that campaigns that have as a goal to increase perception of the risk associated with lung diseases, can make use of some sort of fear message, and at the same time instigate self efficacy. Maibach, et al. (1991) found that exposure to health campaigns can increase a participant's perceptions of self-efficacy, and changes on self-efficacy can influence the behavior of a campaign's target: "Interventions that enhance self-efficacy will not only have an initial effect of fostering behavioral enactment, but they will further reinforce the reciprocal relationship between self-efficacy and behavior" (p. 12).

Previous research has also demonstrated that, in general, those two dimensions, fear and self-efficacy, are good predictors of behavior change. For instance, Maddux and Rogers (1983) found that outcome expectancy (fear) may influence behavior by 1)

directly causing changes in intentions and behavior and 2) by causing changes in self-efficacy expectancy that subsequently influences behavior. Schoenberger, Kirsch, and Rosengard (1991) found that behavior was influenced by self-efficacy and fear tolerance. Tanner and his colleagues (Tanner, Hunt, and Eppright (1991); Tanner, Day, and Crask (1989)) found that threat-oriented fear appeals were more effective if they also contained information concerning the coping process, moreover, that fear appeals are effective if severity of threat, probability of occurrence, coping response, and self-efficacy are considered. Bennett, Spoth, and Borgen (1991) demonstrated that self-efficacy and fear of fat were most strongly correlated with taking the bulimia test.

Nonetheless, missing from these previous findings were means to deal with those two factors. The present study provides a direct access to the primary beliefs linked to these two factors for the specific case of lung diseases. Although, the results are valid only for the specific case of the risk of lung diseases in North Carolina, the theoretical background can be applied elsewhere.

It is important to note that by focusing on traits that are effective moderators of risk perception, a more persuasive message is likely to result. A risk message is ineffective when it violates the traits that combine to form the individual's risk perception. For the practitioner this approach will possibility a more scientific based message construction, whereas for researchers on the area of risk communication the, just

introduced, framework provides an interaction of three areas of research--risk perception, decision making process, and persuasion--that are likely to be central in understanding risk communication process.

APPENDIX A

(low risk - high risk factor)
On a scale from 1 to 10, where 1 is vey low and 10 is very high, how much of a risk do you personally consider lung diseases?

		percent
1.	Very low	4.2
2.		5.3
3.		6.7
4		3.6
5		15.6
6		6.9
7		9.9
8		16.0
9		8.8
10.	Very high	20.4
11.	Don't know	2.5

(voluntary - involuntary factor)
In your opinion, do people face the risk of lung disease voluntarily or involuntarily? Please, answer using the following scale: (read options 1 to 5)

	percent
1. Totally voluntarily	8.4
2. Somewhat voluntarily	26.3
3. Voluntarily	19.2
4. Somewhat involuntarily	30.1
5. Totally involuntarily	10.3
6. Don't know (don't read)	5.7

(familiar - unfamiliar factor)
Is lung disease a new and novel risk or old and familiar? Please, answer using the following scale: (read options 1 to 5)

	percent
1. Totally new disease	0.6
2. Somewhat new	4.0
3. Neither new nor familiar	5.5
4. Somewhat familiar	24.8
5. Totally familiar disease	63.8
6. Don't know (don't read)	1.3

(controllable - uncontrollable factor)
To what extent is the risk of lung disease controllable? Do you think that lung disease is a:

	percent
1. Totally controllable risk	4.2
2. Somewhat controllable risk	65.9
3. Neither controllable nor uncontrollable	10.9
4. Somewhat uncontrollable risk	11.2
5. Totally uncontrollable risk	3.8
6. Don't know (don't read)	4.0

(controlled by self - controlled by others factor)
If a person is exposed to the risk of getting a lung disease, to what extent is death controlled by personal action? Do you think that death in the case of lung disease can be:

	percent
1. Totally controlled by personal action	6.1
2. Somewhat controlled by personal action	63.4
3. Neither controlled nor uncontrolled by personal action	9.5
4. Somewhat uncontrolled by personal action	9.9
5. Totally uncontrolled by personal action	5.5
6. Don't know (don't read)	5.7

(fair - unfair factor)
Do you think that lung disease is a general risk for society as a whole, or are some people particulary more prone than others to get a lung disease? Please answer using the following scale, lung disease is:

	percent
1. A general risk for the society as a whole	21.3
2. A risk for quite a bit of the society	17.1
3. A risk for a moderate portion of the society	32.8
4. A risk for a small portion of the society	13.1
5. A risk for some people only	11.6
6. Don't know (don't read)	4.2

(not dreaded - dreaded factor)
Do you think that the risk of getting a lung disease is something that people have learned to live with, and can think about it reasonably calmly, or is it one that people have great dread of? Please, answer using the following scale (read options 1 to 5)

	percent
1. Totallay common risk	6.9
2. Somewhat common	26.5
3. Neither common nor dreaded	11.2
4. Somewhat dreaded	28.4
5. Totally dreaded	23.2
6. Don't know (don't read)	3.8

(chronic - acute factor)
Do you think that lung disease is a risk that kills people one at a time- therefore a chronic risk- or a risk that kills a large number of people at once-therefore a catastrophic risk. Please, answer using the following scale: (read options 1 to 5)

	percent
1. Totally chronic	29.9
2. Somewhat chronic	38.5
3. Neither chronic nor catastrophic	10.1
4. Somewhat catastrophic	9.7
5. Totally catastrophic	4.6
6. Don't know (don't read)	7.2

Figure 1.
From Risk Communication to Action

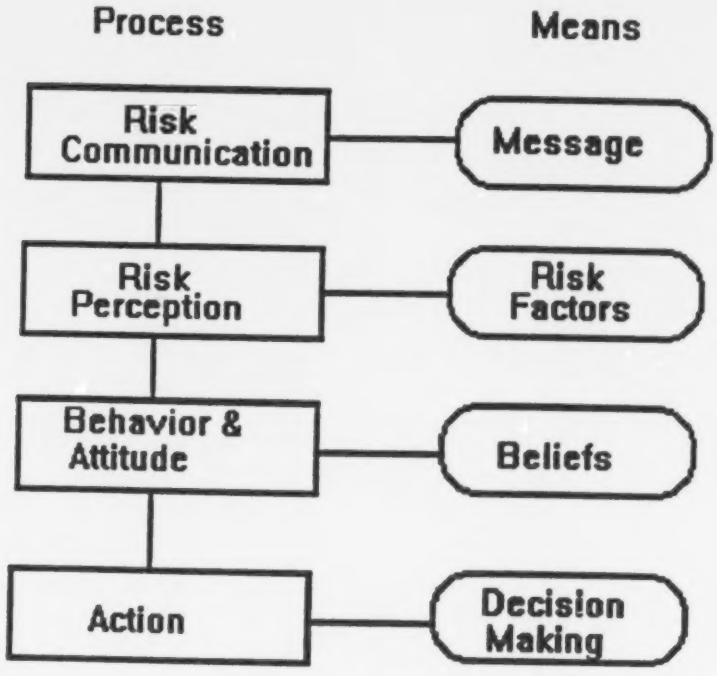

Table 1 - Subjective Risk Factors

Less Risky	More risky
voluntary	involuntary
familiar	unfamiliar
controllable	uncontrollable
controlled by self	controlled by others
fair	unfair
not memorable	memorable
not dreaded	dreaded
chronic	acute
diffused in time and space	focused in time and space
natural	artificial

(adapted from Sandman et al. 1987)

Table 2 - Factor Matrix:

variables	FACTOR 1 DREAD	FACTOR 2 SELF-EFFICACY	commun.
not dreaded - dreaded	.74292	-.04152	.55
chronic - acute	.58815	.06430	.35
low risk - high risk	.52063	-.03291	.27
self controllable - not	.03719	.76796	.59
voluntary - involuntary	.02979	.75072	.56
eigenvalue	1.18	1.15	
pct. of variance	23.7	23.0	

Bibliography:

Ajzen, I. & Fishbein, M. 1980. Understanding attitude and predicting social behavior. Englewood Cliffs, NJ: Prentice-Hall.

Bennett, N. A., Spoth, R. L., & Borgen, F. H. (1991). Bulimic symptoms in high school females: Prevalence and relationship with multiple measures of psychological health. Journal of Community Psychology, 19 (1) 13-28.

Combs, B., & Slovic, P. (1979). Newspaper coverage of causes of death. Journalism Quarterly, vol. 6, pp. 837-843.

Covello, V. (1989). Informing public about risks from chemicals, and other toxic substances: A review of obstacles to public understanding and effective risk communication. In W. Leiss (Ed.) Prospects and Problems in Risk Communication (1-25). University of Waterloo Press.

Donovan, D. & Marlatt, G. A. (1982), Personality subtypes among driving-while-intoxicated offenders: Relationship to drinking behavior and driving risk. Journal of Consulting and Clinical Psychology, 50 (April), 241-249.

Donovan, J. & Jessor, R. (1978), Adolescent problem drinking: Psychological correlates in a national sample study. Journal of Studies on Alcohol, 39 (September), 1506-1524.

Einhorn, H. J. (1970). The use of nonlinear, noncompensatory models in decision making. Psychological Bulletin, 73 (3), 221-230.

Ferguson, M. A., Valenti, J. M., & Melwani, G. (1991). Communicating with risk takers: A public relations perspective. In L. A. Grunig and J. E. Grunig (Eds.) Public Relations Research Annual, vol. 3 (195-224). Hillsdale, NJ: Lawrence Erlbaum.

Fischhoff, B., Lichtenstein, S., Slovic, P., Derby, S. L., & Keeney, R. L. (1981). Acceptable risk. New York: Cambridge University Press.

Fishbein, M. & Ajzen, I. 1975. Belief, attitude, intention, and behavior: An introduction to theory and research. Reading, MA: Addison-Wesley.

Fishbein, M. & Ajzen, I. 1981. Acceptance, yelding and impact: Cognitive process in persuasion. In R. Petty, T. Ostron & T. Brock (eds.) Cognitive response in persuasion (pp. 339-360). Hillsdale, NJ: Lawrence Erlbaum Associates.

Fishhoff, B, Watson, S. R., & Hope, C. (1984). Defining Risk. Policy Sciences, 17, 123-139.

Kasperson, R. E., Renn, O., Slovic, P., Brown. H. S., Emel, J., Goble, R., Kasperson, J. X., & Ratick, S. (1988). The social amplification of risk: A conceptual framework. Risk Analysis, 8 (2), 177-187.

Keeney, R. L., & von Winterfeldt, D. (1986). Improving risk communication. Risk Analysis, 6 (4), 417-424.

Laird, F. N. (1989). The decline of deference: The political context of risk communication. Risk Analysis, 9 (4), 543-550.

Slovic, P., Fishhoff, B., & Lichtenstein, S. (1979). Rating the risks. Environment, 21 (3), 14-20, 36-39.

Maddux, J. E., & Rogers, R. W. (1983). Protection motivation and self-efficacy: A revised theory of fear appeals and attitude change. Journal of Experimental Psychology, 19, 469-479.

Maibach, E., Flora, J. A., Nass, C. (1991). Changes in self-efficacy and health behavior in response to a minimal contact community health campaign. Health Communication, 3 (1), 1-15.

Otway, H. & Von Winterfeldt, D. 1982. Beyond acceptable risk: On the social acceptability of technologies. Policy Sciences, vol. 14, pp. 247-256.

Sandman, P., Weinstein, N., & Klotz, M. (1987). Public response to the risk from geological radon. Journal of Communication, vol. 37 (3), Summer, pp. 93-108.

Schoenberger, N. E., Kirsch, I., & Rosengard, C. (1991). Cognitive theories of human fear: An empirically derived integration. Anxiety Research, 4 (1), 1-13.

Slovic, P, Fishhoff, B., & Lichtenstein, S. (1980). Facts and fears: Understanding perceived risk. In R. Schwing and W. A. Albers (Eds.) Societal Risk Assessment: How Safe is Safe Enough. New York: Plenum.

Slovic, P, Fishhoff, B., & Lichtenstein, S. (1982). Why study risk perception. Risk Analysis, vol. 2, 1, pp. 83-94.

Svenson, O. (1988). Mental models of risk, communication, and action: Reflections on social amplification of risk. Risk Analysis, 8 (2), 199-200.

Tanner, J. F., Day, E., & Crask, M. R. (1989). Protection motivation theory: An extension of fear appeals theory in communication. Journal of Business Research, 19 (4), 267-76.

Tanner, J. F., Hunt, J. B., & Eppright, D. R. (1991). The protection motivation model: A normative model of fear appeals. Journal of Marketing, 55 (3), 36-45.

Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty. Science, vol. 185, pp. 1124-1131.

Weinstein, N. & Sandman, P. 1993. Some criteria for evaluating risk messages. Risk Analysis, vol 13, 1, pp. 103-114.

Wynne, B. 1984. Perception of risk. In J. Surrey (ed.) The Urban transportation of irradiated fuell (pp. 246-259). London: MacMillian.

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Reacting to the "S" word: Newspaper type, community location and coverage of suicide news

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Reacting to the "S" word: Newspaper type, community location and coverage of suicide news

Suicides are among the touchiest subjects newspapers face. They confront the editor with a basic journalistic question: Where does the public's right to know end and the individual's right to privacy begin? As every editor who has had to decide how -- or if -- to report a suicide is aware, there is no quick or easy answer.

Yet suicide's continuing occurrence means editors need answers. Suicide has taken more than 30,000 lives annually in recent years, at a rate of about 12 deaths per 100,000 people (Statistical Abstract, 1992). Considering that no editor is exempt from having to deal with suicides, it might be expected that newspaper researchers frequently would examine this subject to find out how newspapers cope. But the literature about newspaper treatment of suicide news is not extensive. Indeed, there is evidence that the media themselves traditionally have wavered on the topic, sometimes reporting suicide news, sometimes concealing it. The American Society of Newspaper Editors more than 40 years ago set up a written debate on suppressing vs. publishing news involving an actual suicide; four invited editors argued to suppress, three argued to publish (ASNE Bulletin, 1952). Some of the arguments *against* publication:

> "An act of suicide is a very personal thing, which in most cases can have only a morbid or a passing interest to the general public. Publication of complete details . . . seldom is of sufficient value to the community as a whole to offset the unhappiness which it brings innocent people."
>
> "In some cases . . . , suicides of public import or of a spectacular nature demand news handling, but by far most suicides do not."
>
> "This case ended with the act [of suicide]. No story should avoidably hurt an individual."

And arguments *for* publication:

> "Withholding fundamental facts in a case of this kind would be going too far in deference to risk and fear."
>
> "Our theory is that it would be better to let the people concerned know the facts, rather than have it spread by gossip."

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"If God Almighty permits a thing to happen, who am I to suppress the story?"

Such comments reflect the ambivalence surrounding suicide news. Van der Rijt (1973), noting that suicide is a taboo topic in Western culture in general, cited what he called a "remarkable" lack of suicide coverage by the media. Also writing about the suicide taboo, Frederick (1971) concluded that many newspapers don't list suicide as a cause of death unless the act is sensational enough to make it newsworthy. He noted that radio and television likewise do not mention suicide unless it is treated as a special-interest story or a topic of intellectual discussion, "even though there may not be any overt policy decisions against it."

This is not to say that routine suicide news is completely ignored. MacDougall (1964) observed that newspapers might not reveal the details of a suicide death, but leaving out an official ruling of suicide "is another matter." Day (1991) noted that "some newspapers do report routine suicides, at least in news accounts if not in the obituaries."

Sociologists in particular have examined news reports about suicide to see how, or if, they influence other suicides. In such a study of the effect of suicide stories on readers, Motto (1971) looked at suicide rates in Detroit before and during a prolonged newspaper strike in 1967-68. He found that during the strike, when printed news about suicides was not available, suicide rates declined sharply in some age groups.

Phillips (1974) found a similar connection between suicide news and suicides. He suggested that publicity about a suicide may result in "copycat" suicides in the days and weeks following the report of the initial death. In an examination of New York and London newspapers between 1947 and 1968, he found that suicides increased immediately after a suicide story was publicized. The greater the publicity, the larger the rise became. [illegible] and Phillips (1982) found similar results when suicides received heavy publicity on ever[illegible]V news programs. Suggesting that some fatal motor vehicle accidents may be disguised suic[illegible]s, Phillips (1979) found that fatal crashes rose significantly in the Los Angeles and San Fra[illegible]isco areas in the three days following front-page

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suicide stories in papers serving those communities. Bollen and Phillips (1981) repeated the study in the Detroit area, with the same results. (Grollman [1971] labels such disguised deaths "autocides.") Phillips (1982) also found that suicides, motor-vehicle deaths and non-fatal accidents all rose immediately after suicide stories appeared in popular television soap operas.

There is not total agreement about this publicity-suicide link. Durkheim (1951), whose Le Suicide in 1897 was a pioneer effort in the study of suicide, contended that while some individuals may respond to suggestion, the overall suicide rate cannot be influenced. His conclusion suggested that suicide stories may affect timing but not total numbers of suicides; that is, publicity may hasten the deaths of those with a propensity toward self-execution but does not cause suicides that would not have occurred without the publicity. Horton and Stack (1984), in an analysis of suicides between 1972 and 1980, found no significant relationship between suicides and national news time allotted to suicide stories. Altheide (1981) looked specifically at Phillips' airplane crash-suicide theory. Reanalyzing some of the crash data used by Phillips, he found that many of the crashes Phillips cited as possible murder-suicides could be attributed to other causes, such as aircraft mechanical problems.

In light of this conflicting data about a suicide-publicity connection, newspaper suicide policies and practices may be of considerable social importance beyond that question of readers' right to know vs. survivors' right to privacy.

In a survey that looked directly at how editors use policies to guide suicide coverage, Sneed and Van Ommeren (1984) found little consistency. Their study of 50 weekly editors in 14 states showed that few had formal suicide policies; most respondents said they deal with suicides on a case-by-case basis. Sneed and Van Ommeren found that the presence of competing media in the community made some papers more likely to define a death as a suicide. They also found that editors frequently struggled with the dilemma of informing their readers vs. respecting the grief of survivors. While a few editors took the attitude that "we simply report news; we do not create it," most respondents indicated that the burden of public information vs. private grief was heavy.

A study of larger papers by the American Society of Newspaper Editors (n.d.) also showed a lack of consistent suicide policies. The ASNE found that policies ranged from no mention of suicide to using euphemisms for suicide ("died unexpectedly") to providing full details. John R. Finnegan, then-chairman of the ASNE ethics committee, noted that the newspaper industry lacks standards and ethical guidelines for covering suicides (Jaben and Hill, 1986).

Such a reaction by the press is consistent with Maris' (1969) view that "most human beings are simultaneously repulsed by, and fascinated with, suicide . . . . The fundamental reaction to suicide is ambivalence." Though Maris was speaking of people in general, the evidence presented by Sneed and Van Ommeren and the ASNE suggests that newspaper editors have much the same reaction.

There is reason to suspect that smaller papers would be more hesitant than bigger ones to report suicides. If suicide is viewed as an instance of social disruption, we might expect to find editors of smaller papers reluctant to provide much information about such deaths because of a perceived threat to community tranquility. Tichenor, Donohue and Olien (1980), Janovitz (1967), Ziff (1986), Rossow and Dunwoody (1991) and numerous other researchers have documented a generally greater attitude among editors of weeklies than dailies to promote such tranquility, though the research has not looked specifically at suicide. It also appears that many small-town readers do not favor their papers printing news about community members involved in certain forms of "deviant" behavior, such as drunken driving and divorce (Edelstein and Contris, 1966). But whether readers see suicide as a similar form of deviance has not been examined.

HYPOTHESES

The purpose of the research presented here was to look at how daily newspapers and two types of weekly newspapers approach the suicide story, how community location influences the handling of suicide news, and what internal tools such as written guidelines are available to aid the editor in making decisions about suicide coverage.

The hypotheses created for this study were heavily influenced by the research cited above that has shown that (1) suicide is usually viewed by journalists and the general public alike as a disruptive, aberrant act, a taboo topic; and (2) the press in small, homogeneous communities is especially likely to avoid reporting of news that could damage community tranquility.

The study tested the following hypotheses[1]:

H1: Weekly newspapers will have fewer formal policies about suicide coverage than daily newspapers.

H2: Weekly newspapers will be less likely than daily newspapers to report suicide as a cause of death.[2]

H2a: *Rural* weeklies will be least likely of all newspaper types to list suicide as a cause of death.

H3: Daily newspapers will be more likely than weeklies to reveal the method used in suicide deaths.

H3a: *Rural* weeklies will be least likely of all newspaper types to reveal the method of suicide.

H4: Weekly newspapers will be more likely than daily newspapers to experience negative reaction from readers when suicide is listed as a cause of death.

H4a: *Rural* weeklies will be most likely of all newspaper types to report negative reaction from readers when suicide is listed as a cause of death.

H5: Daily newspaper editors will be more likely than weekly editors to say readers have a right to know a death was a suicide.

H5a: *Rural* weekly editors will be least likely of all editors to say readers have a right to know a death was a suicide.

H6: Weekly editors will be more likely than daily editors to say they would honor a request to suppress the suicide factor in a local death.

H6a: *Rural* weekly editors will be most likely of all editors to say they would honor a request to suppress suicide information.

Beyond examining these hypotheses, this research also sought editors' views on:

- The theory that suicide news triggers other suicides.

---

[1] Because more total weekly newspapers than dailies were contacted, hypotheses were based on proportions rather than raw numbers.

[2] The Minnesota Government Data Practices Act (Minn. Stat. ch. 13.83) requires that "cause of death" and "causes of cause of death" be public information. This means that information confirming a death as a suicide should be available to the press.

• Perceived reader interest in suicide news.

• Competition from other local media in reporting suicide news.

• Use of euphemisms (e.g., "died unexpectedly") to describe suicides.

• Circumstances that would cause a suicide death to be reported if the normal practice was to withhold such information.

The information from these non-hypothesis-based questions was gathered to help give background to editors' responses to the hypothesized material and also as the basis for continuing study of suicide coverage.

METHOD

To examine how newspapers cover suicides, a survey of Minnesota daily and weekly newspapers was conducted in August 1992 as part of a continuing broader study, which began in 1987, of how Minnesota newspapers handle controversial deaths. (The suicide rate in Minnesota is about 11.8 per 100,000 residents [Statistical Abstract, 1992].) A questionnaire dealing with aberrant-death news had been pretested on a selected group of six daily and six weekly newspaper editors in Iowa, Wisconsin and Minnesota before the 1987 study. The same questionnaire and a cover letter guaranteeing anonymity were mailed in August 1992 to news editors at 86 Minnesota newspapers -- all 26 of the state's mainstream dailies[3] plus 30 weeklies in the Minneapolis-St. Paul suburbs and 30 additional weeklies in rural Minnesota. The suburban and rural weeklies were selected from the Minnesota Newspaper Association membership directory, using systematic random sampling, and represented about 17 percent of Minnesota's weekly newspapers. All general-interest newspapers in Minnesota are listed in the directory. The distinction between suburban and rural weeklies was made according to the Minnesota Newspaper Association's categorization of the papers. Circulations of papers surveyed in 1992 ranged from a low of 734 for the smallest weekly to a high of 410,301 for the largest daily. Each newspaper was assigned an

[3] Two commercial dailies -- one a business newspaper and the other a legal newspaper -- were omitted from the study because they do not routinely carry death news. Also omitted was the student-operated daily newspaper at the University of Minnesota.

identification number for survey categorization purposes.

After two weeks, follow-up phone calls were made to non-respondents. After four weeks, 59 percent of the surveys had been returned, representing 58 percent of the dailies (n=15), 53 percent of the suburban weeklies (n=16) and 67 percent of the rural weeklies (n=20).

Results were then tabulated.

FINDINGS

The results of the survey supported hypothesis 1, which predicted that daily newspapers would be more likely than weeklies to have formal guidelines governing suicide coverage ($p<.01$[4]; see Table 1). Ninety-three percent of the dailies reported having a formal suicide policy, either in written form or unwritten but understood. Only 47 percent of the weeklies had a formal policy. That trend was especially strong among rural weeklies, only 20 percent of which reported having a formal policy. However, when suburban weeklies alone were compared with dailies, no significant difference was found, although the trend was in the expected direction with 81 percent of the suburban weeklies having a formal policy compared with 93 percent of the dailies.

Hypothesis 2, which predicted that weeklies would be less likely than dailies to report suicide as a cause of death, received limited weak support. The only significant difference in revealing the suicide factor was found between dailies and *suburban* weeklies: one-third of the suburban-weekly editors reported they would reveal suicide as a cause of death, compared with 71 percent of the daily editors who would do so. But when weeklies were considered as a whole, 53 percent said they would probably disclose the suicide factor. Although that tendency was in the expected direction, the difference between weeklies and dailies was not significant (see Table 2). The difference became imperceptible when dailies were compared only with *rural* weeklies, 69 percent of which said they would disclose suicide as a cause of death, compared with the dailies' figure of 71 percent.

Likewise, there was no significant difference when *rural* weeklies were compared with

[4] All tests of significance in this study were done using chi square at the $p<.01$ level.

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suburban weeklies -- although the trend was strongly in the direction of rural weeklies, with 69 percent compared with 33 percent of the suburban weeklies saying they would disclose the suicide factor. Thus, support was not found for hypothesis 2a, which had expected to find *rural* weeklies least likely of all papers to reveal a suicide.

Also missing was significant support for hypotheses 3 and 3a, which had predicted that daily newspapers would be more likely than weeklies to reveal the method used in suicide deaths and that *rural* weeklies would be least likely of all to reveal the method (see Table 3). The data showed that among editors whose papers usually disclose the suicide factor in a local death, 70 percent of the daily editors said they would also disclose the method used, a nonsignificant difference compared with the 65 percent of weekly editors who would do so. Similarly, when dailies were compared with rural and suburban weeklies as separate categories, there was no significant difference. The strongest difference, though it was not significant, was between the two categories of weeklies; 88 percent of suburban papers who disclose suicides said they would also reveal the method used, but only 53 percent of rural editors said they would do so. Thus, hypothesis 3a, that rural weeklies would be least likely to reveal the suicide method, found support, but not at a significant level.

Nor was there statistical support for hypotheses 4 and 4a (see Table 4). These hypotheses had expected to find that weeklies, especially *rural* weeklies, would be more likely than dailies to get negative reaction from readers when local deaths were reported as suicides. The data showed just the opposite result, although not at a statistically significant level. Eighty percent of the dailies that normally report suicides said they "frequently" or "sometimes" get negative reactions from readers; only 55 percent of the weeklies reported negative reactions. The lowest level of negative reaction was reported by the *suburban* weeklies at 38 percent. Sixty-four percent of the *rural* weeklies said they receive flak over suicide news.

Following this trend of surprises, the results also failed to support hypothesis 5, which had predicted that daily editors would be more likely than their weekly counterparts to say readers have

a right to know that a local death was a suicide (see Table 5). Although proportionally more daily editors (67 percent) than weekly editors (40 percent) said readers have a right to know about suicides, the difference was not significant. There was also no difference when the two categories of weeklies were compared or when dailies were compared with each category of weeklies. The strongest, though nonsignificant, difference appeared when dailies and suburban weeklies were compared. Dailies at 67 percent were twice as likely as suburban weeklies at 33 percent to support readers' right to know about suicides. Rural weeklies, at 45 percent, fell in the middle range, and so hypothesis 5a, predicting that rural weeklies would be least likely to say readers had a right to know about a suicide, was not supported.

Several significant differences did emerge when data relevant to hypothesis 6 were examined (see Table 6). That hypothesis had speculated that daily newspapers would be less likely than their weekly counterparts to honor requests by funeral homes or family members to suppress the suicide factor in a death. Only 33 percent of the dailies said they would "likely" or "very likely" honor a request to not list suicide in reporting the death; 80 percent of the rural weeklies and 94 percent of the suburban weeklies said they might honor the request. That difference held up when dailies were compared separately with rural and suburban weeklies. However, there was no significant difference between suburban and rural weeklies; in fact, suburban weeklies held a proportional edge over rural weeklies, with 94 percent vs. 80 percent saying they might suppress suicide information. Thus, hypothesis 6a, which had predicted that *rural* weeklies would be most likely to suppress information, did not hold up.

Beyond the data collected for testing these hypotheses, the survey also provided several other pieces of suicide-coverage information that will be used as a foundation for further study:

• No editors said they "strongly agree" with the theory that suicide reports may trigger some readers to commit suicide. Although a handful (7 percent of the daily editors, 10 percent of the rural weekly editors, none of the suburban weekly editors) said they "agree" with that statement, the vast majority -- 60 percent of the dailies, 82 percent of the suburban weeklies and 65 percent of

the rural weeklies -- said they either "disagree" or "strongly disagree." The others weren't sure.

• Asked to rate reader interest in suicide news on a scale of 1 to 10, where 1 means not at all interested and 10 means very interested, daily editors gave a mean rating of 6.9, suburban weekly editors a rating of 7.9 and rural weekly editors a rating of 7.6.

• Asked to use a 1-to-10 scale to rate the level of competition with other media in reporting local suicides, editors reported less-than-intense competition for the most part. With 1 meaning no competition and 10 meaning intense competition, daily editors gave a mean rating of 2.1 to the level of competition with other newspapers, 2.5 to radio and 2.5 to television. Suburban weekly editors rated competition with other newspapers at 3.3, radio at 2.7 and television at 2.4. Rural weekly editors rated other papers at 3.6, radio at 2.7 and television at 1.9.

• Editors were asked how often they use euphemisms such as "died unexpectedly" or "sudden illness" to skirt the suicide issue in a local death. Among daily editors, 93 percent said "rarely" or "never." Seventy-six percent of suburban weekly editors and 75 percent of rural weekly editors said "rarely" or "never." No editor in any newspaper category reported "frequently" using euphemisms in suicide deaths.

• Editors whose papers "*sometimes but not always* run a separate story (beyond the obituary) about a suicide death" were asked what circumstances would prompt a distinct story. Editors for all three newspaper types listed "if the suicide involved more than one victim" as the top reason for a separate story (60 percent daily editors, 81 percent suburban weekly, 70 percent rural weekly). The next-most-likely reasons were "if the suicide occurred in a public place" (53 percent dailies, 81 percent suburban weeklies, 60 percent rural weeklies) and "if the suicide victim was a well-known community member" (47 percent dailies, 69 percent suburban weeklies, 60 percent rural weeklies). Somewhat fewer editors (40 percent dailies, 56 percent suburban weeklies, 35 percent rural weeklies) said they would run a story "if the suicide involved unusual circumstances, such as an unusual method."

DISCUSSION

The data supporting hypothesis 1, which had predicted that daily papers would be more likely than weeklies to have formal suicide policies, at first glance might appear to confirm that smaller papers avoid suicide news or have inconsistent ways of dealing with suicide stories. However, that finding probably reflects no more than the fact that bigger papers, with larger staffs, have a greater need than smaller papers for formalized policies to help coordinate coverage -- because several other findings in the study suggested that big papers, small papers, rural and urban, were more alike than had been expected in their practices involving suicide coverage.

The most-noteworthy -- and most surprising -- finding was that the often-observed differences between large- and small-town newspapers failed to materialize when it came to suicide news. Time and again, as hypotheses were tested, the results seemed to fly in the face of what past research has revealed about attitudes in the small-town press and the community it serves. Considering the "taboo" nature of suicide in American society, it was anticipated that the community press in particular -- a civic booster, a defender of the status quo, a bastion of peace and tranquility -- would eschew the subject of suicide, would avoid it when it could and write around it when it couldn't. Such does not seem to be the case in many of the Minnesota communities examined here. The fact that more *suburban* weekly editors than daily editors said they might suppress a suicide story was indeed in line with the expectations of this study. But the finding that *rural* weeklies were just as likely as dailies to report suicide deaths was perplexing. The research reported here was intended to uncover practices rather than underlying motivations, and so definite conclusions can't be drawn, but two explanations seem plausible: (1) The small-town press may report suicides as a means of rumor control -- because the fact of the suicide will "get out" anyway via the grapevine, and reporting it may squelch unfounded speculation about motive and circumstances[5]; or (2) suicides may be reported as a means of reinforcing community

[5] This idea was propounded by MacDougall (1964) almost 30 years ago.

mores, of showing readers that suicides are aberrant behavior that will not go unnoticed.[5] As the editor of one daily explained: "Although covering suicides . . . is uncomfortable for all involved, we consider every death to be significant, and unusual circumstances should be noted."

If the community press were to downplay suicide news, it was expected weekly papers would be likely to avoid unnecessary details even if the fact of suicide were reported. But again, a surprise -- weeklies were not significantly more likely than daily counterparts to suppress information about the method of suicide. Suburban weeklies, in fact, were most likely of all to provide such information, and even a majority of the rural weeklies indicated they would reveal the method of death. So what has become of the small-town editor struggling to balance readers' right to know with the need to defend privacy rights and to maintain community calm?

Where, likewise, are the readers angry that "one of their own" suffered the final indignity of being labeled a suicide? If the community press, as traditionally reported by researchers, shuns negative news, then it was expected that the small-town reader would react negatively when suicides were reported. But again, that expectation was not supported. Among the three types of newspapers examined, *dailies* were most likely to get negative feedback over suicide reports. Why didn't weeklies seem to find as much reader concern? The data seem to flout typical findings about small-town attitudes (in both the press and its public) toward negative news.

A bit of non-surprising results finally crept into the data when, at least proportionally, daily editors were more likely than their weekly counterparts to say readers had a right to know a death was a suicide. But even here, that attitude wasn't statistically significant. The "concealment" and down-playing often associated with the small-town press may have peeked out a bit, but it failed to come into clear view. (It was, however, interesting to find that one weekly's suicide-coverage policy seems to suggest that a suicide will be reported only if people in the community already know about it. Asks the policy: "Are a large number of people in the community aware of the death?" The implication seems to be that if the answer is no, suppressing the suicide is

[5] See Tichenor, Donohue and Olien (1980) for a detailed discussion pertaining to the community press reporting "negative" news as a means of controlling socially disruptive behavior.

appropriate.)

The prediction that came closest to meeting expectations was in editors' willingness to suppress suicide information at the request of a funeral home or survivors. Daily editors did what previous community-structure research has hinted they might be more inclined than their weekly counterparts to do: They said they probably would refuse to suppress the information. That contrasts with weekly editors, including a noteworthy 94 percent of those in the suburban press, who said they would oblige the request to suppress. But even here there was a surprise: Rural editors were *less* likely than their suburban colleagues (though not significantly so) to say they would suppress suicide news if requested to do so. Again, that outcome defies earlier research that shows rural editors especially likely to avoid rocking the community boat.

Part of the explanation for several of these unexpected outcomes may be found in editors' response to a question asking about reader interest in suicides. With editors in all three newspaper categories reporting a sense of strong reader interest in suicide news, perhaps journalists choose to risk giving the readers "what they want" either out of a sense of obligation to provide a complete report or -- a less noble thought -- to help sell their product.

Fear of competition didn't offer much to help explain similarities or differences in suicide coverage among the three types of papers studied; there was no statistically significant link between perceived competition and suicide coverage. Also, although there was a nonsignificant trend among editors of weeklies to be more likely than editors of dailies to hide suicides behind euphemisms, that finding wasn't strong enough to qualify as a true difference among the papers.

When considering circumstances that *might* prompt an editor to run a suicide story, rural editors were closer than their suburban colleagues to the views of daily editors. Again, this similarity between small- and big-town papers was unexpected, and it points up what much of the study revealed -- that in the area of suicide coverage, rural weeklies were in many ways no more different from dailies than they were from weeklies in the suburbs.

It would be illogical (and presumptuous) to think that one study could negate decades of

research showing major differences between small and large newspapers in their coverage of controversial situations. But something is happening in the area of suicide coverage that goes against the usual flow. Perhaps suicide is such a touchy topic, such an affront to the expected and desirable, that normal newspaper policies and performance at all levels are thrown out. Detailed research into not only newspaper *practices* concerning suicides but also into journalists' personal, intraorganizational and extraorganizational *motivations* for reporting (or not reporting) suicides as they do is in order.

NOTE

The author wishes to thank Sharleen Lindeman and Dale Bednarek for their assistance in gathering preliminary data for this study and in compiling the survey data.

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REFERENCES

Altheide, David L. "Airplane Accidents, Murder, and the Mass Media: Comment on Phillips." Social Forces 60 (December 1981): 593-596.

American Society of Newspaper Editors. "To Suppress or Not to Suppress?" The Bulletin (April 1, 1952): 1, 10.

Bollen, Kenneth A., and Phillips, David P. "Imitative Suicides: A National Study of the Effects of Television News Stories." American Sociological Review 47 (December 1982): 802-809.

Bollen, Kenneth A., and Phillips, David P. "Suicidal Motor Vehicle Fatalities in Detroit: A Replication." American Journal of Sociology 87 (September 1981): 404-412.

Burroughs, Elise, ed. "On the Subject of Suicide." The Editors' Exchange. Washington: American Society of Newspaper Editors (n.d): n.p.

Day, Louis A. Ethics in Media Communications: Cases and Controversies. Belmont, Calif.: Wadsworth Publishing Co., 1991.

Durkheim, Emile. Suicide, a Study in Sociology. Translated by John A. Spaulding and George Simpson. Glencoe, Ill: Free Press, 1951.

Edelstein, Alex S., and Contris, Joseph J. "The Public View of the Weekly Newspaper's Leadership Role." Journalism Quarterly 43 (Spring 1966): 17-24.

Frederick, Calvin J. "The Present Suicide Taboo in the United States." Mental Hygiene 55 (April 1971): 180.

Grollman, Earl A. Suicide Prevention, Intervention, Postvention. Boston: Beacon Press, 1971.

Horton, Hayward, and Stack, Steven. "The Effect of Television on National Suicide Rates." Journal of Social Psychology 123 (June 1984): 141-142.

Jaben, Jan, and Hill, David. "The Suicide Syndrome." Washington Journalism Review 8 (July 1986): 10-11.

Janovitz, Morris. The Community Press in an Urban Setting, 2nd ed. Chicago: University of Chicago Press, 1967.

MacDougall, Curtis D. The Press and Its Problems. Dubuque, Iowa: Wm. C. Brown, 1964.

Maris, Ronald W. Social Forces in Urban Suicide. Homewood, Ill.: The Dorsey Press, 1969.

Minnesota Government Data Practices Act. Minnesota Statutes Ch. 13.83.

Motto, Jerome A. "Newspaper Influence on Suicide -- A Controlled Study." Suicide et Mass Media: III Reunion Du Groupement D'Etudes et de Prevention du Suicide. Paris: Masson & C., 1971.

Phillips, David P. "The Impact of Fictional Television Stories on U.S. Adult Fatalities: New Evidence of the Effect of the Mass Media on Violence." American Journal of Sociology 123 (May 1982): 1340-1359.

Phillips, David P. "The Influence of Suggestion on Suicide: Substantive and Theoretical Implications of the Werther Effect." American Sociological Review 39 (June 1974): 340-354.

Phillips, David P. "Suicide, Motor Vehicle Fatalities, and the Mass Media: Evidence Toward a Theory of Suggestion." American Journal of Sociology 84 (March 1979): 1150-1174.

Rossow, Marshel D., and Dunwoody, Sharon. "Inclusion of 'Useful' Detail in Newspaper Coverage of a High-Level Nuclear Waste Siting Controversy." Journalism Quarterly 68 (Spring/Summer 1991): 87-100.

Sneed, Don, and Van Ommeren, Roger. "How to Report a Suicide." Grassroots Editor (Winter 1984): 11-12.

Statistical Abstract of the United States 1992. Washington: U.S. Department of Commerce, Bureau of the Census, 1992.

Tichenor, Phillip J.; Donohue, George A.; and Olien, Clarice N. Community Conflict and the Press. Beverly Hills: Sage Publications, 1980.

Van Der Rijt, P. J. A. "The Suicide Taboo in Western Life and Science." In Proceedings 7th International Conference for Suicide Prevention. Eds. Nico Speyer, Rene F. W. Diekstra and Karel J. M. Van de Loo. Amsterdam: International Association for Suicide Prevention, 1973.

Ziff, Howard M. "Practicing Responsible Journalism: Cosmopolitan Versus Provincial Models." In Responsible Journalism. Ed. Deni Elliott. Beverly Hills: Sage Publications, 1986.

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Table 1. Newspapers reporting formal policies to guide their coverage of suicides

	Newspaper type			
	Daily	Suburban weekly	Rural weekly	
Formal policy	14	13	4	31
No formal policy	1	3	16	20
	15	16	20	51

X^2 = 23.69, 2 df, p<.01 (X^2 of 9.21034 or greater needed for significance at p<.01)

Table 2. Likelihood that a death would be reported as a suicide

	Newspaper type			
	Daily	Suburban weekly	Rural weekly	
Report suicide	10	4	11	25
Not report suicide	4	8	5	17
	14	12	16	42*

X^2 = 4.76, 2 df, p<.01 (X^2 of 9.21034 or greater needed for significance at p<.01)

Table 3. Likelihood that method of suicide would be reported

	Newspaper type			
	Daily	Suburban weekly	Rural weekly	
Report method	7	7	8	22
Not report method	3	1	7	11
	10	8	15	33*

X^2 = 2.86, 2 df, p<.01 (X^2 of 9.21034 or greater needed for significance at p<.01)

*N may not total 51 respondents because of differences in number of papers saying they report suicides and subsequently commenting on specific aspects of that reporting.

Table 4. Likelihood that suicide report will bring negative reaction from readers

	Newspaper type			
	Daily	Suburban weekly	Rural weekly	
Negative reaction	8	3	9	20
No neg. reaction	2	5	5	12
	10	8	14	32*

X^2 = 3.46. 2 df. p<.01 (X^2 of 9.21034 or greater needed for significance at p<.01)

Table 5. Editors' belief in readers' right to know a death was a suicide

	Newspaper type			
	Daily	Suburban weekly	Rural weekly	
Right to know	10	5	9	24
No right to know	5	10	11	26
	15	15	20	50*

X^2 =3.46. 2 df. p<.01 (X^2 of 9.21034 or greater needed for significance at p<.01)

Table 6. Likelihood that request to suppress suicide news would be honored

	Newspaper type			
	Daily	Suburban weekly	Rural weekly	
Agree to suppress	5	15	16	22
Refuse to suppress	10	1	4	11
	15	16	20	51

X^2 = 39.41. 2 df. p<.01 (X^2 of 9.21034 or greater needed for significance at p<.01)

*N may not total 51 respondents because of differences in number of papers saying they report suicides and subsequently commenting on specific aspects of that reporting.

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"The Plague" over time: A longitudinal study of how newspaper type and community location have influenced basic decisions about AIDS reporting

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A paper presented at the Science Communication Interest Group session, annual convention of the Association for Education in Journalism and Mass Communication, Kansas City, Mo., August 11-14, 1993.

"The Plague"[1] over time: A longitudinal study of how newspaper type and community location have influenced basic decisions about AIDS reporting

The AIDS epidemic -- "The Plague" -- for more than a decade has presented American newspapers with one of their toughest assignments ever in the area of health-risk reporting. The scientific complexity of the disease has combined with its sociological, economic and moral implications to challenge the skills of writers and editors from the smallest to the largest newspapers (Dennis, 1988; Lander, 1988). This paper will examine how dozens of daily and weekly newspapers in three different types of communities have responded to AIDS at the local level.

Stories about the Acquired Immune Deficiency Syndrome first began to appear in American newspapers in 1981, but early coverage has been criticized for being slow to develop. The New York Times, for example, carried only half a dozen stories on AIDS in 1981 and 1982 (Baker, 1986), and it was mid 1982 before the Los Angeles Times became the first member of the mainstream media to run a front-page story about the disease (Kinsella, 1989; see also Klaidman, 1991, and Dennis, 1988). Jerry Bishop, a science and medicine reporter for the Wall Street Journal in the mid 1980s, confirmed that early coverage was limited. He recalled an August 1981 story on page 20 and a November 1982 front-page feature about children with AIDS. But, he said, in the disease's early years he had AIDS stories cut, killed and buried (Bishop, 1987).

Once AIDS caught the fancy of American newspapers, it rapidly became one of the century's most ubiquitous news stories, appearing in tens of thousands of stories on the front pages and science pages and sports and finance and real-estate pages of America's newspapers (Dennis, 1988; Kramer, 1988).

AIDS coverage took its first major leap in 1983, when some in the medical community suggested the disease might be spread by routine contact (Griswold and Packer, 1991; Klaidman, 1991; Kinsella, 1989). Coverage saw a second major escalation in 1985, when it was disclosed that actor Rock Hudson had the disease, from which he died later that year. A third escalation

[1] "The Plague" and similar terms have often been used by journalists and non-journalists to describe AIDS. As the disease emerged in the early 1980s, it was sometimes called "the gay plague," "the gay bug" or "gay cancer." These "gay" phrases, not common today, came to be seen as negative because AIDS is not limited to the gay community (Lander, 1988; Plummer, 1988; Wellings, 1988; Kinsella, 1989). The term "plague," however, is still frequently found in the literature.

occurred in 1987, when the federal government floated proposals for widespread testing for AIDS and when musician Liberace died of the disease. A fourth major escalation came in the latter part of 1991, when the AIDS-related death of "Psycho" star Anthony Perkins was followed two months later by basketball star Earvin "Magic" Johnson's announcement that he was carrying the HIV virus, which leads to AIDS.

Despite their slow start in informing the public about AIDS, the media have come to be recognized as important channels for communicating information about the disease (Finnegan, Hertog and Kahn, 1990; Dennis, 1988; Wellings, 1988). Even such risk groups as drug users and prostitutes, who have been called "untouchables" in terms of their lack of response to risk information about AIDS, get a large share of their AIDS information from the media (Eisenberg, 1988). These journalists-cum-AIDS educators are recognized as more than passive conveyors of health information; they are seen making active decisions about when and in what form to publish such information, often -- but not always -- based on established journalistic standards (Klaidman, 1991).

Journalists' decision to actively pursue the AIDS story has been fraught with more pitfalls than most stories, and newspapers have often followed inconsistent policies and practices in their coverage. Early reporting in The San Francisco Chronicle, one of the first major media to cover the disease, has been called "hit or miss" (Kinsella, 1989). William Cox, former managing editor of the Honolulu Star-Bulletin and himself an AIDS patient, warned the American Society of Newspaper Editors in 1987 that their publications needed to set up specific policies to guide their AIDS coverage (Stein, 1987). Echoing that theme, Dr. Mervyn Silverman, president of the American Foundation for AIDS Research, told the ASNE: "Many people are hanging on threads of hope and many on threads of fear. That's why balanced reporting [about AIDS] is so important" (Stein, 1987).

But despite years in which they might have established AIDS-reporting guidelines, many newspapers large and small were reactive rather than reflective as the disease spread (Kramer, 1988), and most lacked long-range, well-thought-out plans for covering the disease (Brecher,

1988; Childers, 1988). As the editor of an Ohio weekly said when asked to comment on his paper's lack of a formal AIDS policy: "We don't sit around and plot how we'll deal with it. It always seems like there's some other priority" (Lander, 1988). Even the huge Wall Street Journal had not established a written AIDS policy by late 1987 (Bishop, 1987).

AIDS typically has been reported under two dominant rhetorics: scientific/medical and moral/theological. Plummer (1988) calls these rhetorics the "medical" model" and the "stigma model."

Scientifically/medically speaking,what Stein (1987) calls the "complicated virology and jargon associated with AIDS" have raised particularly pesky obstacles to effective reporting (Kinsella, 1989; Dean, 1992). The fact that the disease was (and, to some extent, remains) little-understood by the medical and scientific community has not lent itself to ideal reporting. Reporters eschew stories that lack easily verifiable observations, a pat closing line, a finding of truth -- and the ongoing struggle with AIDS has not often provided clean observation or neat closure (Klaidman, 1991; Altman, 1985).

Morally/theologically speaking, the disease has been equally challenging (Klaidman, 1991; Kinsella, 1989; Lander, 1988; Plummer, 1988; Wellings, 1988). Journalists have been lured by AIDS because it involves "the taboo subjects of sex and death" (Dean, 1992). Yet in describing transmission of the disease, writers and editors have been torn between the journalistic expectation of accurate, detailed reporting and the readers' demand for "good taste" in mainstream "family" newspapers (Finnegan, Hertog and Kahn, 1990; Lander, 1988; Institute of Medicine, 1986). Objectivity has often become a victim of this ambivalence. Some reporting has subtly differentiated between "innocent" and "guilty" victims, painting a much more negative picture of those who contract the disease through "illicit" practices such as homosexual activities, prostitution or intravenous drug use than those who become ill because of tainted-blood transfusions or at birth because of an infected mother (Grover, 1989; Plummer, 1988; Weeks, 1988; Wellings, 1988; Check, 1987). Sometimes, too, those AIDS cases that fall between the two moral extremes of "innocent" and "guilty" -- e.g., cases in which there is no evidence of particularly unorthodox

sexual behavior -- are often not reported at all (Wellings, 1988). Even in obituaries, the nature of the illness may be suppressed unless there is a compelling reason for disclosure (Sipe, 1989).

The geographic distribution of AIDS cases has also affected coverage. For the first several years after it came to light, AIDS was perceived as a "big-city" disease, and not without cause. The federal Centers for Disease Control estimated that two-thirds of the AIDS cases reported in the early to mid 1980s were among homosexual males in large cities (World Almanac, 1992). New York City alone had an estimated one-third of the nation's known AIDS cases in 1987, a year in which major metro-area daily newspapers carried more than 10,000 AIDS-related stories (Kramer, 1988; Stengel, 1987). By late 1987, Minnesota had experienced 235 reported AIDS cases and 133 deaths since the disease emerged several years earlier (Minnesota Department of Health, 1987). By the late 1980s, more than half of the reported cases in the United States had occurred in eight major cities (Hulley and Hearts, 1989). This early concentration in large cities placed AIDS in the domain of newspapers and other media that had the time and expertise to cover the disease, and so experience on the "AIDS beat" developed first in large metropolitan areas (Kramer, 1988).

Resources alone, however, have not always translated into easy coverage. For example, a San Francisco Chronicle AIDS-reporting pioneer, himself openly gay, was labeled a "sexual fascist" and "gay Uncle Tom" by the gay community for his reporting about the disease (Kinsella, 1989). But covering this tough story sometimes has been at its toughest as the story inevitably has spread from the big cities toward "the villages" (Nagle, 1989). The nature of media coverage has sometimes been affected when the AIDS patient has been perceived as a threat to community tranquility (Nagle, 1989). This outcome is not surprising. Janovitz (1967), Tichenor, Donohue and Olien (1980), Ziff (1986), Rossow and Dunwoody (1991) and other researchers have all noted that community characteristics have a direct impact on the nature of news coverage and the amount of information provided to readers. Specifically, they have observed that the press in smaller, less-pluralistic communities is more likely to favor positive community news over negative and to downplay or avoid news that might threaten community tranquility. In AIDS-related examples of this attitude, Nagle (1989) cited the rips in the community fabric of rural

Kokomo, Ind., caused by the Ryan White AIDS story. A hometown reporter was driven out of journalism by his coverage of the story. Nagle also found Arcadia, Fla., reacting punitively when its newspaper criticized the town for its negative reaction to three young brothers with AIDS. The newspaper lost all but one of its major advertisers because of its coverage. The Minnesota Newspaper Association in mid 1987 warned its members, particularly those in small communities, to proceed carefully with AIDS coverage. The MNA warned that "the stigma of AIDS could be very damaging and hurtful to, not only the patient, but to his or her family as well. Proceed with caution" (MNA Bulletin, 1987).

Despite this difficulty of coverage, AIDS won't go away. The AIDS numbers suggest more and more editors will be faced with local AIDS decisions in the near future, even if they have managed to escape the issue in the past. The U.S. Centers for Disease Control calls AIDS the fastest-growing cause of premature deaths in the United States (World Almanac, 1992). Reporting 152,153 AIDS-related deaths in the United States by mid 1992, the CDC estimated that another 230,179 Americans had AIDS and more than six of every 100,000 Americans were carrying the HIV virus. Global numbers are equally sobering. The World Health Organization in 1992 estimated that as many as 13 million people, including 1 million children, were HIV positive and that up to 40 million people worldwide could become positive by the year 2000; Harvard University's Global AIDS Policy Coalition was even more pessimistic, estimating 110 million HIV infections by the turn of the century (World Almanac, 1992). Especially relevant to the research being reported in this paper are the numbers for Minnesota: almost 1,500 reported AIDS cases and more than 900 deaths since 1982 (Minnesota Department of Health, 1993) and an HIV infection rate of almost 2 per 100,000 people (Statistical Abstracts, 1992).

Even after a decade of intensive press coverage, then, AIDS remains a risky but unavoidable topic for journalists -- especially when the disease strikes close to home.

HYPOTHESES

With AIDS firmly established as a story too big to ignore, and with writers and editors aware it is not an easy story to cover either scientifically or sociologically, how are newspapers dealing

with the disease? To help assess trends and changes in AIDS reporting, several hypotheses were formed in 1987 and repeated or expanded in 1992 for a study of newspaper coverage of AIDS in Minnesota.

The first pair of hypothesis was based on the fact that although AIDS has been reported in all 50 states, its heaviest presence remains in larger communities by virtue of their raw population numbers and typically higher concentrations of "risk" groups. This suggests newspapers in or peripheral to larger communities will likely have had more experience in dealing with local AIDS cases. Many of these papers, compared with smaller-community counterparts, have more reporters and editors who must coordinate their coverage of the disease. That combination of opportunities for coverage and need for coordination makes it logical that "standard operating procedures" concerning AIDS reporting may have evolved for newspapers in or near larger communities during the decade that AIDS has been an issue. It was hypothesized, then, that:

> **H1:** Daily newspapers will be more likely than weekly newspapers to have a formal AIDS-coverage policy.
>
> **H1a:** The increase in formal AIDS policies between 1987 and 1992 will be greater among dailies than among weeklies.[2]
>
> **H1b:** Rural weeklies will be less likely than suburban weeklies to have formal AIDS policies.

These hypotheses seemed especially apropos for the 1992 survey, because the 1987 study showed that dailies, and to a lesser extent suburban weeklies, were much more likely than rural weeklies to have formal policies for covering other death news (e.g., suicides and routine obituaries) -- although only 5 percent of the dailies, none of the suburban weeklies and 5 percent of the rural weeklies responding to the 1987 survey had created formal AIDS-coverage policies, in keeping with a common lack of formal AIDS policies among U.S. newspapers in 1987.

The second pair of hypotheses was based on the numerical spread of AIDS and on its continuing image as an affliction linked with deviant, illicit or aberrant behavior. The mounting number of AIDS cases in Minnesota[3] suggests that more and more newspapers may have

[2] Hypothesis 1a, obviously, was used only for the 1992 survey.

[3] Minnesota's first AIDS case was reported in 1982. By the end of 1987, the total had reached 313 cases, and by March 1, 1993, it had swelled to 1,489 cases, including 922 deaths (Minnesota Department of Health: AIDS Epidemiology Unit, 1993).

encountered local cases. The stigmatized nature of AIDS suggests that AIDS reporting may be at odds with what numerous researchers have concluded to be a hallmark of small-town newspapering: the desire to maintain peace, cooperation and community status quo. This same research has found that newspapers in larger, more-pluralistic communities are less restricted by concerns over the effect on community tranquility of press coverage of specific events.

Thus, for the 1992 survey compared with 1987, it was hypothesized that:

> **H2:** Stories about local AIDS deaths will have increased among all newspapers as the epidemic matured, but
>
> **H2a:** The proportion of papers reporting AIDS stories will have increased more among *daily* newspapers than among *weeklies*, and more among *suburban* weeklies than *rural* weeklies.

(A similar hypothesis used for the 1987 survey predicted that local AIDS stories would be proportionally more common among dailies than among suburban and rural weeklies; the results of the 1987 survey partially supported that hypothesis.)

Several hypotheses created for the 1992 survey examined whether newspaper type and accompanying community characteristics had an influence on the likelihood that AIDS would be revealed as a cause in local deaths. It was clear from the 1987 survey that listing of a cause of death in routine (i.e., non-AIDS) obituaries was common. That survey showed that more than three-fourths of the dailies, more than half of the suburban weeklies and more than two-thirds of the rural weeklies "frequently" or "sometimes" listed a cause of death in obituaries. This seemed to establish that a majority of the papers to be re-surveyed in 1992 -- particularly the dailies -- were not philosophically opposed to listing a cause of death[4] per se.

In formulating these hypotheses, several factors converged: an ever-increasing total number of AIDS cases in the state; the continuing stigma attached to the disease; and the generally recognized reluctance of some editors to print controversial news. Thus, it was hypothesized that:

> **H3a:** The proportion of editors reporting that they know of local cases in which AIDS was *not* reported as a cause of death will have increased between 1987 and 1992.

[4] The Minnesota Government Data Practices Act (Minn. Stat. ch. 13.83) requires that "cause of death" and "causes of cause of death" be public information. This means that information linking AIDS to a death should be available, even though AIDS per se is not a "cause of death" but rather a cause of the actual cause, e.g., pneumocystis carinii pneumonia or Kaposi's sarcoma.

H3a: The increase in the proportion of editors knowing of local deaths *not* reported as AIDS-related will be greatest among rural weeklies, which traditionally are most reluctant to print news of controversy.

(A research question in the 1987 survey asked editors if they knew of local AIDS deaths that had *not* been reported as AIDS-related; 14 percent of daily editors, 16 percent of rural-weekly editors and none of the suburban-weekly editors said they knew of such cases.)

Hypotheses 3 and 3a, of course, presupposed that local AIDS deaths had occurred. To examine predilections among editors whose papers had not yet dealt with a local AIDS death, it was hypothesized that:

H4: Editors of dailies will be more likely than editors of weeklies to predict they would probably disclose the AIDS factor should a local AIDS death occur.

H4a: Editors of *rural* weeklies will be least likely to predict they would disclose the AIDS factor in a local death.

Beyond these formal hypotheses, both the 1987 and 1992 survey asked editors who had already handled a local AIDS death how they had dealt with the AIDS factor: by mentioning it in the obituary, in a separate story or not at all.

METHOD

The research reported here began in 1987 following the escalation of AIDS coverage caused by the federal government's call for widespread AIDS testing and by musician Liberace's AIDS-related death. A questionnaire dealing with AIDS coverage and other aberrant-death news was pretested on a selected group of six daily and six weekly newspaper editors in Iowa, Wisconsin and Minnesota. After necessary revisions, the questionnaire and a cover letter guaranteeing anonymity were mailed in August to news editors at 86 Minnesota newspapers -- all 26 of the state's mainstream dailies[5] plus 30 weeklies in the Minneapolis-St. Paul suburbs and 30 additional weeklies in rural Minnesota. The suburban and rural weeklies were selected from the Minnesota Newspaper Association member directory, using a random-number table, and represented about 17 percent of Minnesota's weeklies. The distinction between suburban and rural weeklies was made according to the Minnesota Newspaper Association's categorization of the papers. Circulations of

[5] Two commercial dailies -- one a business newspaper and the other a legal newspaper -- were omitted from the study because they do not routinely carry death news. Also omitted was the student-operated daily newspaper at the University of Minnesota.

papers surveyed in 1987 ranged from a low of 735 for the smallest weekly to a high of 489,808 for the largest daily. Each newspaper was assigned an identification number for survey categorization purposes. A follow-up mailing was sent in September, and the final response rate was 76 percent[6], broken down by newspaper type as follows: 85 percent dailies (n=22), 60 percent suburban weeklies(n=18), and 83 percent rural weeklies (n=25). The results were tabulated and used in late 1987 as the basis of a day-long Minnesota Newspaper Foundation workshop about reporting controversial news.

Five years later, after "Magic" Johnson's HIV announcement in November 1991 caused a resurgence of AIDS stories, the survey was repeated. The same questionnaire used in 1987 was mailed in August 1992 to the same daily and weekly newspapers surveyed five years earlier, with minor exceptions; three of the weeklies (two suburban, one rural) included in the original survey were no longer in business; they were replaced by other papers from the appropriate newspaper-type categories in the Minnesota Newspaper Association directory, using a random-number table. The circulation range in 1992 was 734 to 410,301.

After two weeks, follow-up phone calls were made to non-respondents. After four weeks, 59 percent of the surveys had been returned, representing 58 percent of the dailies (n=15), 53 percent of the suburban weeklies (n=16) and 67 percent of the rural weeklies (n=20). Results were tabulated for comparison with the 1987 findings.

FINDINGS

The survey results provided mixed support for Hypothesis 1, which predicted that dailies would be most likely to have formal AIDS-news policies and that weeklies would be least likely.

In 1987, none of the newspapers surveyed had established a formal, *written* policy about how to handle a local AIDS case. Only 5 percent of the dailies, 5 percent of the rural weeklies and none of the suburban weeklies were guided by an *unwritten but understood* formal policy; all other papers in the survey indicated they would handle AIDS news on a case-by-case basis. By 1992, 20 percent of the dailies reported having established formal, written AIDS policies and another 13

[6] All percentages in this paper have been rounded to the nearest whole percent. In some cases, rounding may create total percentages of 99 or 101 rather than 100. Findings for both 1987 and 1992 are summarized in Table 1.

percent had formal but unwritten policies. But no weeklies in 1992 reported having a written or unwritten formal policy; even the 5 percent of rural weeklies reporting an unwritten but formal policy in 1987 had disappeared. The small or nonexistent number of weeklies with AIDS policies made statistical tests of differences impractical, but the numbers make it clear that dailies in 1992 were more likely than their weekly counterparts to have formal AIDS policies, as Hypothesis 1 had predicted. However, that hypothesis did not hold true for 1987.

The increase in dailies having formal AIDS policies from 5 percent in 1987 to 33 percent in 1992, compared with an actual decline in weeklies reporting such policies from 5 percent to 0, supports Hypothesis 1a, which predicted that dailies would be more likely than weeklies to add AIDS policies between 1987 and 1992.

There is no evidence, however, to support Hypothesis 1b, which suggested that rural weeklies would be less likely than suburban weeklies to have formal AIDS policies. Neither type of paper reported having formal policies in 1992, and in 1987 the rural weeklies actually held an edge of 5 percent vs. 0 percent over their suburban counterparts. (By way of contrast with other death-news policies, the 1992 survey showed that 93 percent of the dailies, 73 percent of the suburban weeklies and 20 percent of the rural weeklies had formal policies for handling suicide deaths; in the 1987 survey, the percentages for dailies, suburban weeklies and rural weeklies were 91, 73 and 20, respectively. Concerning routine obituaries, 67 percent of the daily editors in 1992 said they had formal policies to guide their coverage, 44 percent of the suburban editors had formal obit policies, and 15 percent of the rural weeklies had formal policies. The numbers in 1987 were 64 percent for dailies, 39 percent for suburban weeklies and 4 percent for rural weeklies. Thus, the newspapers surveyed seemed to be moving toward formalizing their death-news policies, with the exception of rural weeklies and suicide policies, for which there was no change between 1987 and 1992.)

Hypothesis 2, which had forecast an overall increase in local AIDS reporting, similarly found weak support -- the expected growth largely failed to materialize. The percentage of dailies having carried news about local AIDS patients in the previous year actually declined from 23

percent in 1987 to 20 percent in 1992. The figures for suburban weeklies dropped from 22 percent reporting such stories in 1987 to none in 1992. However, for rural weeklies, 10 percent of the editors responding to the 1992 survey *did* report having carried one or more local AIDS stories in the preceding year, compared with none who did so in 1987. Thus, although dailies carried proportionally more local AIDS stories than either kind of weekly in both 1987 and 1992, the predicted increase in coverage between 1987 and 1992 occurred only in rural weeklies. Hypothesis 2a, therefore, also lacked support. It had predicted that dailies would show the largest increase in AIDS coverage, followed by suburban weeklies and then rural weeklies; the finding that rural weeklies were the only type of paper to show an increase in AIDS stories was opposite this expected result.

The data did support Hypothesis 3, which predicted an increase in editors knowing of deaths in which AIDS information had been suppressed. In all three newspaper categories, more editors in 1992 than in 1987 said they knew of local AIDS deaths that had not been identified as AIDS-related in obituaries or other stories. The change over five years was most dramatic among editors of dailies: Only 14 percent in 1987 said they knew of AIDS-related deaths that had not been reported as such; the number by 1992 had risen to 60 percent. Among editors of suburban weeklies, none in 1987 verified AIDS deaths that had gone unreported as AIDS-related; by 1992, 19 percent of the respondents knew of such deaths. The change, while in the same direction, was less dramatic among rural editors, 16 percent of whom in 1987 and 20 percent in 1992 reported knowing of AIDS deaths that had not been reported in their papers as AIDS-related; thus, support was lacking for Hypothesis 3a, which had predicted that rural weeklies would show the greatest increase in suppressing AIDS news.

Hypothesis 4 had predicted that among papers that had not yet experienced a local AIDS death, editors of dailies would be more likely than editors of weeklies to say they would disclose the AIDS factor if such a death should occur. Hypothesis 4a predicted that editors of *rural* weeklies would be least likely to reveal the AIDS factor. The results supported neither hypothesis. For both dailies and suburban weeklies surveyed in 1992, the drift seemed to be *away* from listing

AIDS as a contributing factor in a local death. Editors for both types of papers in 1992 were more likely than five years earlier to say they probably would *not* mention AIDS in reports about the death -- not in an obituary, not in a separate story. For dailies, only 9 percent of respondents in 1987 said they would not mention AIDS; the number in 1992 climbed to 33 percent. That concealment trend held true for suburban weeklies; 38 percent of the editors in 1992 compared with 17 percent in 1987 said they would forego mentioning AIDS.

An opposite trend, however, was seen among editors of rural weeklies. In 1987, 40 percent of rural editors said they would not reveal AIDS as a factor in a local death; by 1992, the percentage had dropped to 35 percent.

Concerning the research question that asked editors how they had reported an actual local AIDS death, no editor reported withholding the AIDS factor. Among five dailies in the 1987 survey that had carried stories about local AIDS-related deaths in the preceding year, two editors said they had mentioned AIDS only in the obituary and three had mentioned it in a separate story. In 1992, only three dailies reported having covered a local AIDS death in the preceding year. One editor reported having mentioned AIDS only in the obituary, and the other two had mentioned it in a separate story. Among suburban weeklies surveyed in 1987, all of the four papers that had handled a local AIDS death said they had mentioned the disease in a story separate from the obituary; none had mentioned AIDS in the obituary itself. In 1992, no suburban weeklies reported having carried a local AIDS story in the preceding year. No papers among the rural weeklies surveyed in 1987 had carried a local AIDS story in the preceding year; in 1992, the two that had carried such a story were divided, one having mentioned the AIDS connection in an obituary, the other in a separate story.

DISCUSSION

Several surprising outcomes emerged from this study. The first surprise is that an expected large increase in the number of stories about local AIDS cases did not occur between the 1987 and 1992 surveys. Although AIDS coverage in the nation's press peaked in 1987 and then slightly declined in the late 1980s and into the very early 1990s, coverage again escalated in 1992 with

"Magic" Johnson's HIV revelation. Thus, both the 1987 and 1992 surveys came at times when AIDS coverage in general was at a high level. Also, the total number of AIDS cases in Minnesota and the nation continued to grow.

The data provide no definitive evidence that would explain why the amount of local AIDS news did not keep pace with the increase in the disease. Perhaps it happened that there was no increase in AIDS cases in the communities whose newspapers were studied, although the increase in the disease in the general population between 1987 and 1992 makes that scenario suspect.

A better clue may come from editors' comments on the returned questionnaires. Time and time again, respondents cited an overriding need to protect the feelings of survivors of people who had died controversial deaths. An editor at a weekly, commenting on stories about controversial deaths in general, said, "We don't need to cause them [family and friends of the deceased] further trauma." Another said, "We are still a small community and don't need to pry into their lives." And another: "The family's wishes are always paramount." Such comments were most frequent among rural weekly editors, but several suburban weekly editors and, to a lesser extent, daily editors shared similar thoughts.

The attitude reflected in such comments supports the notion that many in the press feel an obligation to protect as well as inform. Between 1987 and 1992, each type of newspaper showed an increase -- sometimes markedly so -- among editors saying they knew of AIDS deaths in which the AIDS connection had been suppressed. Perhaps, then, journalists themselves did not label some deaths as AIDS-related out of consideration for survivors' feelings. It is possible, too, that medical personnel, funeral homes or coroners, for their own reasons, did not specifically identify some deaths as AIDS-related. (One editor specifically cited the coroner as a stumbling block in getting information about local deaths, even though information relating to cause of death is public record under Minnesota law.)

Another speculation is that editors might hold a conviction that AIDS as a cause of death is simply no longer any more newsworthy than other illnesses that go unspecified in obituaries -- although in written comments in the survey responses, no editors expressed that opinion.

Regardless of the reason, reporting of specifically identified AIDS deaths in the newspapers studied does not appear to be keeping pace with the reported increase in Minnesota and U.S. AIDS cases.

A second unexpected finding was that a rush toward formalizing AIDS-reporting policies failed to materialize between 1987 and 1992, a time during which AIDS remained a highly visible news story in the nation's media. It seemed likely that the continuing escalation of the AIDS epidemic would by 1992 have caused editors to establish a game plan for handling local AIDS cases that sooner or later would arise. After all, a large majority of dailies and suburban weeklies examined in 1987 said they followed formal policies in dealing with suicides, which, like AIDS deaths, can create difficult ethical and emotional decisions concerning coverage. Even rural weeklies, whose frequency of covering AIDS stories might be expected to be lower than that of metropolitan-area papers, were expected to report at least a smattering of formal AIDS policies by 1992. But such was not the case. None of the responding suburban or rural weeklies in 1992 had formal AIDS policies, either written or unwritten. And even among dailies, whose likelihood of having to confront local AIDS cases seems greater than that of the weeklies, a full two-thirds of the responding editors in 1992 said their papers have no formal AIDS-reporting policies. While the one-third of the dailies reporting a formal AIDS policy in 1992 was up from fewer than 5 percent in 1987, the small numbers are still surprising.

The apparently widespread lack of AIDS policies doesn't seem to be the result of a general shunning of formalized death-news standards, for guidelines concerning obituaries and suicide deaths were found to be common and increasing among the papers studied. The presence of these other death-news policies casts doubt on the idea that editors are so confident in their news operations that they see no need for policies to deal with highly charged topics. Indeed, at least some editors seem to recognize a need for a formal AIDS policy. One 1992 respondent, whose daily paper does not have a formal policy and had not carried a local AIDS death in the previous year, observed, "AIDS deaths concern me because we have to figure out a sensitive policy *and stick to it!*" (His emphasis.) An alternate explanation is that perhaps the lack of formal AIDS

policies reflects the fact that, while AIDS deaths are not rare, the disease is still new enough that editors haven't yet found a journalistic need for formal guidelines -- or the time to formulate them. An editor at a rural weekly explained that "unusual causes of death are infrequent" in his small town. Some editors simply may not be too worried about how they will handle an AIDS death when and if one occurs. Newspapering, after all, is by its nature a reactionary business, and "winging it" under deadline pressure is part of the job. Yet at least one daily editor in the survey said her biggest concern about covering death news in general was "being consistent." Ironically, that editor's newsroom had no formal AIDS policy (nor a formal policy even for routine obituaries). Ultimately, perhaps the lack of a formal policy is in part an avoidance of the inevitability of a local AIDS case, a false hope that "maybe it won't happen here."

The study provided an interesting contrast between editors who have and who have not handled local AIDS stories. Among editors who *had* published news of local deaths involving AIDS, *all* in both 1987 and 1992 said they had revealed the AIDS factor either in an obituary or in a separate story. The small number of papers having actually faced local AIDS deaths makes pronouncements risky, but some tentative conclusions can be drawn. The data indicate that editors who actually have dealt with local AIDS deaths may not agree on whether that information belongs in the death notice itself or in a separate story that will keep the obit "clean," but they are unanimous in reporting the role of AIDS in the death.

However, among those editors who *had not yet* handled a local AIDS death, many posited that they would *not* mention AIDS as a factor should a local death occur. One might have expected that sort of finding among weekly editors, who research indicates are seen by themselves and their readers as obliged to avoid "negative" community news. And indeed, one-third or more of the weekly editors, either suburban or rural, said in 1992 they probably would not divulge the AIDS factor. But that same attitude is especially curious among editors of dailies, one-third of whom said they would not reveal the AIDS factor. Previous research suggests dailies are much less likely than weeklies to shy away from "bad" news. Are the 33 percent of daily editors who in 1992 said they would suppress the AIDS connection in a local death going against this established trait? Are

they suppressing the AIDS factor to protect the privacy of the deceased and survivors? Or rather, instead of hiding the AIDS component, are those editors at the forefront of covering the disease by already having decided that AIDS is so common it is no longer newsworthy enough to mention in death stories? The current research provides no answers.

The mystery is compounded when information about *actual* but *unrevealed* local AIDS deaths is considered. It was startling to discover that 60 percent of the daily editors who responded to the 1992 survey said they were aware of local AIDS deaths in which the AIDS factor had been suppressed. The increase from 14 percent in 1987 was dramatic. It was also interesting to note that a much smaller percentage of suburban and rural weekly editors (19 and 20 percent, respectively, up from 0 and 16 percent in 1987) said they knew of unreported AIDS information in local deaths. Again, it must be asked: Why are so many editors of dailies not only indicating they *might* withhold the AIDS connection in a local death but also saying they actually know of cases in which that has occurred? And why are weekly editors, those journalists who research has shown are likely to eschew negative community news, apparently no less inclined than their counterparts at dailies to disclose AIDS information? One might again speculate that some editors, especially those at daily papers, have decided AIDS has matured to the point of being simply "another disease" and that there is no point in mentioning it in death news. But if that is indeed the reasoning, how would one explain that cancer, heart disease and other mortal ills are mentioned regularly in death news? Speculation that is even more troublesome, from a journalistic viewpoint, is that some editors -- or their superiors -- may have decided that local AIDS cases are better left unrevealed because of the fear that a local AIDS case could rip the social fabric of the community -- a la the Ryan White and Arcadia, Fla., cases. One editor at a weekly newspaper offered evidence that "pressure from above" to tread lightly in the AIDS area does truly exist. She observed:

> "I would go ahead and cite AIDS . . . within the context of a story about a death. However, our publication is way behind and somewhat sheltered. It is frustrating to me that I would not be able to print honest, newsworthy stories because I may offend someone by mentioning AIDS. And I cannot believe that our readers are blind to major issues such as these. But if my publishers won't let me [reveal AIDS in a local death story], there's not much I can do."
>
> (This writer later left the newspaper because of differences over journalistic philosophy.)

The extent that such intraorganizational pressures influence coverage of AIDS and other controversial deaths cries out for further study.

NOTES

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REFERENCES

Baker, Andrea. "Portrayal of AIDS in the Media: An Analysis of Articles in the New York Times." In The Social Dimensions of AIDS: Method and Theory. Eds. Douglas Feldman and Thomas Johnson. New York: Praeger Publishing Co., 1986.

Bishop, Jerry. Deputy News Editor, Wall Street Journal. Personal interview, Madison, Wis., 2 October 1987.

Brecher, Edward M. "Straight Sex, AIDS and the Mixed-Up Press." Columbia Journalism Review 26 (March/April 1988): 46, 48-50.

Cheek, William A. "Beyond the Political Model of Reporting: Nonspecific Symptoms in Media Communication about AIDS." Reviews of Infectious Diseases 9 (1987): 987-1000.

Childers, Doug. "Media Practices in AIDS Coverage and a Model for Ethical Reporting on AIDS Victims." Journal of Mass Media Ethics 3 (Fall 1988): 60-65.

Dean, Malcolm. "AIDS and the Murdoch Press." The Lancet 339 (May 23, 1992): 1286.

Dennis, Everette E. "Health News and Its Consequences." Communique 2 (April 1988): 2.

Eisenberg, Paul. "Ignoring Risk: AIDS and Society's Untouchables." Communique 2 (April 1988): 5.

Finnegan, John R. Jr.; Hertog, James; and Kahn, Emily. "Media Coverage of AIDS in the Minnesota and National Press: Report to the Minnesota Department of Health on a Pilot Study." Paper prepared for the Minnesota Department of Health, St. Paul, 21 February 1990.

Griswold, William F., and Packer, Cathy. "The Interplay of Journalistic and Scientific Conventions in Mass Communication about AIDS." Mass Comm Review 18 (1991): 9-20, 47.

Grover, Jan Zita. "Newsweek's AIDS Coverage: The Exception Is the Rule." Extra! 2 (March/April 1989): 4-5.

Hulley, Stephen B., and Hearst, Norman. "The Worldwide Epidemiology and Prevention of AIDS." In Primary Prevention of AIDS. Eds. Vickie M. Mays, George W. Albee and Stanley F. Schneider. Newbury Park: Sage Publications, 1989.

Institute of Medicine, National Academy of Sciences. Confronting AIDS: Directions for Public Health, Health Care, and Research. Washington: National Academy Press, 1986.

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Janowitz, Morris. The Community Press in an Urban Setting, 2nd ed. Chicago: University of Chicago Press, 1967.

Kinsella, James. Covering the Plague: AIDS and the American Media. New Brunswick: Rutgers University Press, 1989.

Klaidman, Stephen. Health in the Headlines. New York: Oxford University Press, 1991.

Kramer, Staci D. "The Media and AIDS." Editor and Publisher 121 (12 March 1988): 11-12, 43.

Lander, Estelle. "AIDS Coverage: Ethical and Legal Issues Facing the Media Today." Journal of Mass Media Ethics 3 (Fall 1988): 66-72.

Minnesota Department of Health, AIDS Epidemiology Unit. Telephone request for information. St. Paul, 19 March 1993.

Minnesota Government Data Practices Act. Minnesota Statutes Ch. 13.83.

Minnesota Newspaper Association. Minnesota Newspaper Association Bulletin 24 (June 16, 1987): 4.

Nagle, Robin. "A Plague in the Villages." In Covering the Plague: AIDS and the American Media. Ed. James Kinsella. New Brunswick: Rutgers University Press, 1989.

Osborn, June E. "A Risk Assessment of the AIDS Epidemic." In Primary Prevention of AIDS. Eds. Vickie M. Mays, George W. Albee and Stanley F. Schneider. Newbury Park: Sage Publications, 1989.

Plummer, Ken: "Organizing AIDS." In Social Aspects of AIDS. Eds. Peter Aggleton and Hilary Homans. London: Falmer Press, 1988.

Rossow, Marshel D., and Dunwoody, Sharon. "Inclusion of 'Useful' Detail in Newspaper Coverage of a High-Level Nuclear Waste Siting Controversy." Journalism Quarterly 68 (Spring/Summer 1991): 87-100.

Sipe, Kerry. "Red Flag for Badgering." FineLine: The Newsletter on Journalism Ethics 1 (October 1989): 5.

Statistical Abstract of the United States 1992. Washington: U.S. Department of Commerce, Bureau of the Census, 1992.

Stein, M. L. "Newspapers Get Advice." Editor and Publisher: 120 (18 April 1987): 16, 41.

Stengel, Richard. "Testing Dilemma: Washington Prepares a Controversial New Policy to Fight AIDS." Time 129 (8 June 1987): 20-22.

Tichenor, Phillip J.; Donohue, George A.; and Olien, Clarice N. Community Conflict and the Press. Beverly Hills: Sage Publications, 1980.

Weeks, Jeffrey. "Love in a Cold Climate." In Social Aspects of AIDS. Eds. Peter Aggleton and Hilary Homans. London: Falmer Press, 1988.

Wellings, Kaye: "Perceptions of Risk -- Media Treatment of AIDS." In Social Aspects of AIDS. Eds. Peter Aggleton and Hilary Homans. London: Falmer Press, 1988.

World Almanac and Book of Facts 1993. New York: Pharos Books, 1992.

Ziff, Howard M. "Practicing Responsible Journalism: Cosmopolitan Versus Provincial Models." In Responsible Journalism. Ed. Deni Elliott. Beverly Hills: Sage Publications, 1986.

TABLE 1: Responses[7] to selected questions by newspaper type in 1987 and 1992

	'87/'92 Daily	'87/'92 Suburban weekly	'87/'92 Rural weekly
1. Has your paper established a policy about how to handle a local AIDS case?			
Yes, we have a written policy	0/20	0/0	0/0
Yes, we have an unwritten but understood formal policy	5/13	0/0	5/0
No, we will look at each case individually	96/67	100/100	96/100
2. Has your paper carried any stories about local AIDS victims in the last year?			
Yes	23/20	22/0	0/10
3. If your paper has carried any stories about local AIDS victims in the last year, how was the AIDS factor handled?			
AIDS was not mentioned as a cause of death	0/0	0/0	0/0
AIDS was mentioned only in an obituary	9/7	0/0	0/5
AIDS was mentioned in a separate story	14/13	22/0	0/5
Passed (No AIDS story in past year)	77/80	78/100	100/90
4. If you have not yet had a local AIDS death, how do you think you *might* handle such a case if it arose?			
Not mention AIDS as a factor in the death	9/33	17/38	40/35
Mention AIDS only in an obituary	9/7	28/19	28/35
Mention AIDS as a cause of death in a separate story	64/40	50/44	28/25
Passed (Had AIDS story in past year)	18/20	6/0	0/0
No answer	0/0	0/0	4/5
5. Are you aware of any AIDS-related local deaths that were not identified as AIDS in your newspaper?			
Yes	14/60	0/19	16/20

[7] All responses are listed as percentages and rounded to the nearest full percent. Because of rounding, totals may not equal 100 percent.

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Take A Bite Out of Problems:
PSA Research Reviewed and Extended

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Take a Bite Out of Problems:
PSA Research Reviewed and Extended

The epidemic of acquired immune deficiency syndrome (AIDS) has renewed governmental and public interest in the use of public service announcements, as a means of reaching those at risk.

Of course, public service announcements have been created over the years on a host of health-related topics and numerous other issues. Many people see the need to communicate about what they consider very important public issues, but the effectiveness of these public service announcements in achieving these goals has been varied.

According to Bush and Boller (1991), the major role of the media in a health crisis is to create public awareness or increase sensitivity on the importance of the issue. A survey indicated that college students got most of their information on AIDS from newspapers, magazines and television, with none of their information coming from doctors or from AIDS workshops.

Reasons for Lack of Success

However, the ultimate goal of public information campaigns is behavioral change, not information gathering. Many, but not all, campaigns with this intent have yielded dismally disappointing research results.

The reasons for lack of effectiveness of the PSAs are varied. Fennell (1985) says that the effect of a PSA is often either overestimated or underestimated. Some may look at the vast mass media audience supposedly reached and not recognize that only a percentage of the masses are the target audience, and only a fraction of these will be exposed to the PSA. If the producers of the PSA believe the message is simplistic compared to commercial messages, they may produce it in a way that is unprofessional compared to commercial advertising.

Another mistake is that research has not guided the creation of PSAs. Paisley (1989) asserts "campaigns succeed or fail on the strength of their planning, implementation, and evaluation, as well as prior research on similar campaigns" (p. 34).

A successful campaign usually cannot rely on public service announcements alone (Kotler & Zaltman, 1971).

Flora, Maccoby and Farquhar (1989) reported that some kinds of health/safety issues could be effectively communicated simply through the mass media, such as changes in eating, while other more complex behaviors such as smoking cessation took more skills training.

Skills training and interpersonal communication were a large part of the "McGruff" crime prevention program (G. J. O'Keefe, 1989). The campaign used television,

radio, magazines, billboards and posters, as well as supplemental brochures which could be used in complementary interpersonal activities, the most notable being the neighborhood watch programs.

The cartoon dog McGruff, dressed as a detective, was a popular and effective spokesperson for all age groups. Non-threatening yet authoritative, he avoided most of the fear-arousing symbols equated with many other anti-crime messages.

An earlier campaign, the "Smokey the Bear" campaign to prevent forest fires has been widely acclaimed for its success, although G. J. O'Keefe (1990) cautions that it did not receive the same kind of intensive empirical study that the McGruff campaign did. However, the similarities between the two campaigns are striking: an anthropomorized, lovable animal spokesperson, tie-ins with local agencies and education programs, and a well-remembered slogan. "Only you can prevent forest fires" is at least as well-known as "Take a bite out of crime."

A survey in 1976 reported that 98 percent of the respondents had aided recall of Smokey, but only 7 percent were able to recall Smokey Bear unaided. Rice (1989) suggests that the very longevity of Smokey may work against its effectiveness, carrying with it the assumption that everyone knows how to prevent forest

fires. The McGruff campaign may experience the same phenomenon eventually. It may be that any campaign, no matter how successful, will eventually wear itself out.

Litter and Norms

Another campaign long on fame and short on applied research is the "Keep America Beautiful" anti-littering campaign. According to the "Keep America Beautiful" campaign, the following PSA is the most popular of the campaign, and has very high recall (Cialdoni, p. 221, 1989): An American Indian paddling his canoe up a river finds litter in the water, and, coming on shore, sees a bag of garbage thrown from a passing car onto a littered highway. A voice-over quotes the slogan: "People Start Pollution; People Can Stop Pollution."

But Cialdoni suggests that the PSA may not be very effective in changing people's behavior, because it presents a mixed message: "...the creators of of the spot may well have pitted two kinds of norms against each other: prescriptive norms (involving perceptions of which behaviors are societally approved) and popular norms (involving perceptions of which behaviors are typically performed)" (p. 222). The PSA set an example of people littering, creating a popular norm that littering was acceptable, while telling people they should not litter, the prescriptive norm.

Cialdoni's research showed that people were less

likely to littler in a clean parking lot than in a dirty one, even when they observed someone else littering nearby. The presecriptive norm appeared to hold over the individual modeling behavior.

Smoking

But the campaigns of most concern to health officials, on smoking, drug abuse, drunk driving, and AIDS, involve another dimension beyond popular norms. They all involve changing deeply ingrained habits, and very likely an addictive behavior. One recent study found that 89 percent of male and 83 percent of female smokers surveyed had tried unsucessfully to quit at least once (McAlister, Ramirez, Galavotti, & Gallion, 1989).

The information campaign on smoking must be considered successful. According to the Gallup Poll Index, in 1958 only 40 percent of the American population believed that smoking was harmful to health, and in 1974 80 percent believed this. The National Center for Health Statistics reported in 1988 that more than 90 percent of the public knew smoking increased the risk of emphysema and lung cancer (McAlister et al., 1989).

There is also evidence that the information campaign is linked to the decline in cigarette consumption in the United States. Cigarette consumption was charted

by Schuster and Powell (1987), which shows publicity following major health news resulted in at least small declines in consumption, usually followed by a subsequent increase (p. 27), as the tobacco industry waged its own counter campaign. The removal of cigarette advertising from television, along with the removal of prime time antismoking messages, resulted in an increase in consumption. There has been a steady decline since 1983, which Schuster and Powell attribute largely the increase in the federal excise tax on cigarettes, but also to a grass-roots anti-smoking movement in the nation.

Still, the success of the antismoking campaign is limited, if the goal is to persuade everyone to stop smoking. M. T. O'Keefe (1971) conducted an attitude survey on the impact of the antismoking public survey announcements on in the late 1960s. He found that there was very little impact on smokers' attitudes. The group that perceived the ads as being most effective were the non-smoking population; 69.91 percent of the non-smokers said they though the commercials were effective, while 52.3 percent of the smokers said they were effective (p. 245). Those smokers who said that the commercials had affected them were those who reported an interest in wanting to quit, so that the campaign helped reinforce attitudes but not change them.

Smoking cessation is a complicated process which requires a campaign of which media messages can play only a part (Flora, Maccoby, and Farquhar, 1989). If O'Keefe had looked at the glass as half-full instead of half-empty, he might have concluded that the PSAs did have some effect: The commercials were able to influence "a bare majority of the smokers who wanted to quit," and "only about half of these reported that the commercials had helped them to cut down" (p. 247).

Even programs that provide training, follow-up and interpersonal communication, though, are very limited in results (McAlister et al., pp. 294-295, 1989).

Modeling has also been found to be an important factor in smoking cessation. One experiment (McAlister et al., 1989) showed that television could be used to present such modeling. One randomly assigned group of smokers received training from an instructor, while another group viewed the same training on television. A control group received no training. Both the face-to-face instruction and the televised instruction groups had high proportions of success, while there was no cessation in the control group.

A larger program was conducted in Houston (McAlister et al., 1989) for the American Cancer Society's Great American Smokeout, combining role models with community

reinforcement. Local businesses and schools were encouraged to publicize the program and give encouragement to employees and students. A follow-up survey three months later revealed that 10 percent of the viewers of the program had achieved cessation. Whether this is considered a success or a failure depends on a subjective interpretation of success.

Drugs

The anti-drug and anti-alcohol campaigns face problems similar to those of the anti-smoking messages: it is not enough to persuade an audience that a behavior is unhealthy, but it requires a retraining of one's lifestyle and often overcoming a physical and/or emotional addiction.

In addition, drug problems are more multi-faceted, including such problems as drunk driving and domestic violence as well as the direct physical effects of drug abuse.

Therefore, it is not surprising that researchers (Donohew and others, 1983; Hanneman and McEwen, 1973; and Rogus and Donohew, 1989) complain of the lack of targeting in anti-drug PSAs. Two other reasons given for the failure of the drug PSAs are the infrequency and low viewing times of exposure, and selective attention and exposure by those for whom the message is intended.

Feingold and Knapp (1977) reported an example of teenagers "tuning out" anti-drug messages. They found that an anti-drug message delivered as a radio PSA in a controlled experiment with high school students led to a decrease rather than an increase in negative attitudes toward illegal drugs. Although the students showed a negative attitude toward using drugs in the pretest, their posttest scores were slightly less negative.

Schmeling and Wotring (1976, 1980) found no attitude change among middle-class people targeted as a group on the problem of prescription drug abuse.

A more novel approach to targeting was taken by Donohew and others (1989), who examined the variable of sensation seeking among drug users and non-drug users. Donohew exposed low sensation seekers and high sensation seekers to anti-drug messages that were designed to appeal to high or low sensation seeking. Drug users were more likely to be high sensation seekers than low sensation seekers. When low sensation seekers did use drugs, they were more likely to report being influenced by peer pressure than by desire to seek a thrill.

The messages targeted to each specific group caused a larger attitude change than the message not targeted to that group. Therefore, Donohew concluded that

sensation seeking can be an important variable in targeting drug users for PSAs.

AIDS

The research on AIDS public information campaigns has focused on how well information is being disseminated, since AIDS is a relatively recent issue. Although most people now know that AIDS is a sexually-transmitted disease that is ultimately fatal, the story is new enough so that until recently (and perhaps even now) there have been room for significant information gaps among the experts. A public health officer told the author in an interview five years ago that he had not heard of a single documented case of a woman infecting her partner with the AIDS virus.

A study of the content analysis of 127 PSAs on AIDS found that 71 percent of the PSAs were directed at the general audience, not a specific target group (Freimuth, Hammond, Edgar, & Monahan, 1990). Although the Centers for Disease Control reported that 63 percent of AIDS cases had been transmitted by homosexual behavior, only one message addressed this high-risk behavior. CDC reported 19 percent of AIDS is transmitted through intravenous drug use; 4 percent of the messages were aimed at this audience (pp. 781, 783).

Persuasion tactics included straightforward

presentation of facts (51 percent), fear appeals (26 percent), emotion (15 percent), and guilt (5 percent).

Flora and Maibach (1990) found that PSAs with emotional appeals aided in recall more than PSAs with rational appeals for those subjects who were not highly involved with the issue of AIDS, while those with higher involvement recalled both almost equally well (p. 782). Subjects were measured as slightly more involved after viewing the PSAs as they were before, although the researchers noted they did not expect the change to be long term (p. 784).

A study of students' attitudes toward AIDS and homosexuality after an education program (Stiff, McCormack, Zook, Stein, & Henry, 1990) found that college students were quite knowledgeable about how the virus was transmitted, but knew far less about the disease itself. Students' attitudes toward homosexuality affected their learning about AIDS, but not about HIV transmission: those with extreme negative views about gay men and lesbians scored lower on testing of information about AIDS, but not about HIV transmission. The researchers proposed that information about transmission of the virus was perceived by adolescents as more personally relevant than the psychosocial and medical aspects of AIDS.

Public service announcements use a number of

persuasion factors that appear often in persuasion messages of all types: (1) fear appeal, (2) self-efficacy, (3) involvement, and (4) affect or emotion. The usefulness of each of these will be examined in the second part of this paper.

Fear Appeal

Research on fear appeals over a half-century has yielded mixed results. Some studies found a negative relationship between fear and persuasion, some found no relationship, and others produced some combination of effects ((Higbee, 1968, Sternthal & Craig, 1974). Higbee suggests that the variable defined as fear may not be the same thing in all studies.

Even if the fear can be adequately defined, different types of fear may produce different results. Thus, fear appeals do not appear to be effective, especially with health and safety messages (Geller, 1989).

King and Reid (1989) examined the effect of fear-arousing communication on drunk driving PSAs. College students viewed one of six drunk driving PSAs. The PSAs showed either a high threat, moderate threat, or a low threat. Scores on Izard's Differential Emotions Scale showed that the subjects' fear had been aroused in the three projected levels of intensity, but this fear did not result in any cognitive, evaluative, or behavioral intention change.

A curvilinear relationship between fear and persuasion was suggested by Higbee. It has been studied with limited success by subsequent researchers. A recent example is Hill's (1988) study of students' anxiety about AIDS and evaluation of condom advertisements. Moderate fear appeal was more effective than high fear or no fear. A study on the same topic by Struckman and Struckman (1990) which used only two levels of fear found no significant difference between high and low fear. But it did find a fear effect: subjects who expressed high fear of getting AIDS rated the condom ads more effective than those who had less fear.

Sternthal and Craig also suggest a number of moderating variables: communicator credibility, audience characteristics such as coping style, self-esteem, perceived vulnerability, and prior stress or anxiety level.

With such contradicting results, fear does not appear to be a useful appeal to use in public service announcements.

Protection Motivation and Self-Efficacy

Protection motivation was formulated by Rogers (1975) as a more cognitive approach to fear appeal. Rogers said that when a subject was presented with a fear communication, he assessed the severity of the

threat, the probability of the threat happening, and the efficacy or worth of the recommended coping response. Bandura (1977) suggested a fourth component which Maddux and Rogers (1983) added to the model: self-efficacy is the person's perceived ability to perform the coping response.

Self-efficacy would be the part of the model which would explain why many smokers do not try to quit smoking even though they believe it is bad for their health and that quitting would reverse the ill effects, i.e., the efficacy of the recommended behavior is high.

Maddux and Rogers (1983) manipulated these four variables and found that the self-efficacy component was the best predictor of behavioral intentions (p. 476). They found a "precaution strategy" among subjects who believed they could perform the coping strategy and it would be effective even if the risk was low. A "hyperdefensive strategy" was seem among those who believed the risk was high. If subjects believed either that they could perform the coping strategy or that it would be effective, they seemed to take the attitude that they had nothing to lose by trying (p. 477).

Reardon (1989) suggests that modeling can be an effective way to teach self-efficacy. Modeling can done through the mass media, but, as Reardon points

out, the motivation for following the modeling must be present. Adolescents may pursue health-risking behavior to avoid the fear of peer rejection.

Involvement

Krugman's (1965) seminal article on the concept of involvement put forth the idea that all influence from the mass media did not come from the audience's active, thoughtful processing of information: "...with low involvement one might look for gradual shifts in perceptual structure, aided by repetition, activated by behavioral-choice situations, and followed at some time by attitude change" (p. 355).

Krugman's definition of low involvement became so significant in mass media research because it was accepted that much of television advertising, and indeed much of all media exposure, took place under the low involvement condition. Therefore, that seemed to be the place to look for communication effects if they were to be found.

The second major theoretical work on involvement was Petty and Cacioppo's (1990) elaboration likelihood model, which proposed two routes of persuasion, a peripheral route guided by superficial cues such as source attractiveness, and a central processing route in which the message arguments are examined. The former defines low involvement and the latter high involvement.

Chaffee and Roser (1986) examined the proposition that knowledge, attitude and behavior are correlated under conditions of high involvement. Using data from the Stanford Heart Disease Prevention Program, they found an overall consistency of the three. Strong attitudes were associated with consistency of knowledge, attitudes and behavior.

But for those subjects who perceived themselves to be at high risk of heart disease, a low consistency among knowledge, attitude and behavior was found. The researchers related this finding to the older fear appeal studies which suggest a curvilinear relationship of fear and attitude change. They concluded that "(v)ery high personal risk may arouse anxiety... Rational thought processes might not survive to this level" (p. 396).

Chaffee and Roser also suggest that "perhaps we should not conceive of 'involvement' as if it were a single general variable" (p. 397). Risk might be, instead of a component of ultra-high involvement in which that general variable produces a curvilinear effect, a separate factor. Perceived risk may be an affective measure, or a combination of cognitive and affective, which confounds measurement (Roser, 1989).

Roser (1990) attempted to break the category down into several components. Studying attention and

message relevance, she found that attention to the message produced greater learning, but perception of relevance was linked to attitude and behavior change.

Greenwald and Leavitt (1984) discuss the "audience involvement/actor involvement" issue (p. 583). Most mass communication deals with the consumer's acquiring information ("audience involvement"), not using it ("actor involvement"). But if a message is intended to change long-lasting attitudes and behavior, it must engage "actor involvement."

Affect

Zajonc (1980) argued for the theory that "affective judgments may be fairly independent of, and precede in time, the sorts of perceptual and cognitive operations commonly assumed to be the basis of these affective judgments" (p. 151). Although present theories of affect do not suggest that affect precedes or can be totally separated from cognition, the importance of affect in persuasion is accepted. Lynn (1974) found that PSAs using an emotional appeal were rated higher than those having a logical, source-attribute or fear appeal.

Much research has sprung from Schacter and Singer's (1962) emotion attribution theory. They found that subjects linked adrenaline-induced arousal to an externally-stimulated emotional state if they did not

know they had received the injection. But if they were aware they had been injected with a stimulating drug, they attributed their emotional responses to the drug. R. A. Dienstbier modified this classic theory with research showing that emotional attribution could be manipulated through verbal discussions with subjects and other purely cognitive processes. He is cited in Smith, Frankenberger and Kahle (1990) suggesting "a modification of emotion attribution theory away from the 'classic' notion that one's understanding of the causes of one's peripheral arousal symptoms determines the quality of emotional experienced" to the hypothesis that "(o)ne's ideas about the source and meaning of one's emotional experience...determines the quality of that experience and the impact of that experience on behavior" (p. 87).

The specific emotion experienced is less important than the degree of the arousal. Englis (1990) reported that commercials which aroused disgust or surprise were best recalled, and happy commercials were recalled as well as fear commercials.

Subjects in a positive processed information more shallowly than subjects in a neutral mood, using peripheral cues (Worth and Mackie, 1987, Mackie and Worth, 1989). When given unlimited time to process information, they took longer than subjects in a

neutral mood, and then processed the message systematically, like the subjects in a neutral mood. This would indicate that experiencing the positive mood took up cognitive processing space; thus, there was less ability to process the message.

Barden, Garber and Leiman (1985) reported that children found it easier to change their negative feelings induced by a video about a child experiencing peer rejection than by hearing the same story told by an experimenter. This appears to have implications for mass media research, suggesting that perhaps television produces lower processing of mood, or else is seen as less real than a story heard in person.

Edell and Burke (1987) found that feelings about television commercials caused a significant impact on evaluation of the commercial.

The advertisements were coded to be high or low on information, and high or low on transformation. Transformational advertising "connects the experience of the advertisement so tightly with the experience of using the brand that consumers cannot remember the brand without recalling the experience generated by the advertisement" (p. 423).

It was found that emotions contributed to the evaluation of all four types of commercials, although they contributed most, as expected, to the high transformational/low information format.

Fennell (1985) lists three ways a message might try to persuade an audience: to have it modify a currently performed activity, to persuade it to stop (or not start) an activity, and to persuade it to start performing an activity (p. 100). Modifying behavior is intrinsically easier that starting or stopping behavior, Fennel points out, because it assumes that the audience is already persuaded to engage in the desired behavior. The "modify" task is simply to change a person's choice of toothpaste or candidate. To start or stop behavior where there is no prior action on the subject's part is much harder, i.e., to persuade the person to stop smoking, or to start voting.

And yet the attempt of most public service announcements is to either start or stop action -- much harder tasks than modifying existing behavior: "(I)nfluence directed to changing action tendencies is 'fundamental' while influence directed to changing the relevant actions that are available and chosen is 'peripheral'" (p. 149).

"How does one proceeed to change a person's susceptibility to activation? Essentially, by changing the affective (emphasis mine) significance of information" (p. 149). Having said this, however, Fennell drops the importance of the affective response

and discusses the cognitive responses of Petty and Cacioppo's (1990) central route to attitude change. In the central processing model, Petty and Cacioppo are primarily concerned with the logical, evaluative thought of the individual. The central route to persuasion does not motivate, Petty and Cacioppo acknowledge. Roser (1990) found that mere attention is unrelated to attitude change: "...(R)esults suggest that attention has no direct effect on attitudes or behavior" (p. 595).

Fennell (1985) suggests that the best, and possibly the only, way to approach the start/stop problem is to tie the desired behavior or attitude in some way to a behavior or attitude they already hold to, so that the persuasion task actually becomes a "modify" task.

> In order to attempt to change importances, we would look to the antecedents of important ratings, namely, to the activating conditions that people experience...It would not be at all surprising when we attempt to change people's susceptibility to activation that our only recourse will be to build on what they already want at some level (p. 151).

Creating "Modify" Tasks: Easy and Relevant

Public service advertising can build on its audience's present wants in two ways:

(1) Make the promoted action as easy to perform as possible and as relevant as possible to the audience's environment.

(2) Through transformational advertising, tap into the emotional responses of the target audience.

The Stanford Heart Disease Prevention Program realized that rainy California winters were not conducive to jogging, so the program changed its exercise promotion campaign to promote brisk walking to and from work, or in other natural situations (Rogers & Storey, 1987, p. 838). Rogers and Storey also suggest that a campaign that promotes immediate positive consequences is more efective than one promoting prevention. Promoting increased energy from exercise may be more effective than promoting lowered risk of heart disease (p. 839).

Therefore, suggesting an easy-to-make lowfat dinner has an advantage over stating the health benefits of a lowfat diet. Not only is it an easy and immediately rewarding task, it has the more long-term benefit of associating healthy eating with positive emotions.

This kind of positive reinforcement can lead to operant conditioning, which "offers a set of procedures for using subjects' wants to shape and control their behavior" (Fennell, 1985, p. 151). Murphy (1985) contends that "blood donation is a behavior that must

be 'learned'" (p. 223). The cookies provided after donating not only serve a physiological purpose, but may considered a reward. The reinforcement helps to encourage repetition of the behavior until it becomes a learned response.

However, this operant conditioning takes place only over time, and certainly after the first time. Murphy reported that those who say they do not intend to donate blood express many more beliefs of negative consequences, and therefore recommended that a blood drive should spend more effort on changing those negative beliefs.

Cialdini (1989) pointed out that the anti-pollution PSA with the slogan "People start pollution; people can stop it" sent a mixed message by indicating that the popular norm was to litter, even though the prescriptive norm was not to pollute. Messages which do not present popular norms that are consistent with the message invite people, especially young people, to rebel against the prescriptive norm and do the popular thing. This is one of the appeals of illegal drugs.

A television campaign promoting safety belt use in cars (Robertson, 1976) was ineffective because it used fear appeals, Geller said. He points to an increase of portrayal of seat belt use on television, from 1 percent of drivers in 1975 to 17 percent in 1986 (p.

202). This is not only an example of modeling, but promotion of a popular norm.

Conclusion

The most successful public communication campaigns are those which have been well-researched and well-targeted. Public service announcements in the mass media are insufficient by themselves to change attitudes and behavior, although they are important for giving information and reinforcement. Good public service announcements can create a recognition of the campaign in a way possible only in mass media. Examples are Smokey the Bear and the McGruff crime prevention campaign.

It is necessary to find the appropriate level of information, training and reinforcement needed to learn the desired behavior, a level which is not the same for all behavioral objectives. Future research should determine what the needed levels are in areas of drug abuse and "safe sex," just as it has been done for smoking. Researchers should take care to measure the level of communication they desire to reach, taking into consideration that knowledge, attitudes, and behavior are so poorly correlated.

One area of research which holds promise yet seems to be lacking is the effect of modeling and prescriptive norms presented in televised programming,

such as wearing automobile seatbelts. When does it work? When does it have a boomerang effect?

Emotion seems to be such a powerful persuasion tool in changing attitudes, and research should focus on how affect can be used in persuasion. The emphasis in health communication often is on information, but research indicates that effective persuasion often bypasses cognition and emphasizes affective responses. Public service messages need to be emotionally as well as cognitively relevant.

Emotional appeals must not be confused with fear appeals. Fear appeals have been used abundantly in health communication, yet the results are usually not successful. It seems best to abandon fear appeals.

No campaign, however successful, can rest on its laurels forever. Smokey the Bear and McGruff began to lose effectiveness as the campaigns became too familiar.

References

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84 (2), 191-215.

Barden, R. C., Garber, J., & Leiman, B. (1985). Factors governing the effective remediation of negative affect and its cognitive and behavioral consequences. Journal of Personality and Social Psychology, 49, 1040-1053.

Bush, A. J., & Boller, G. W. (1991). Rethinking the role of television advertising during health crises: A rhetorical analysis of the federal AIDS campaigns. Journal of Advertising, 20 (1), 28-37.

Chaffee, S. H., & Roser, C. (1986). Involvement and the consistency of knowledge, attitudes, and behaviors. Communication Research, 13, 373-399.

Cialdini, R. B. (1989). Littering: When every litter bit hurts (pp. 221-223). In R. E. Rice and C. K. Atkin (Eds.), Public Communication Campaigns, Second Edition, Newbury Park, Cal: Sage Publications.

Donohew, L., & others (1989). Sensation seeking and targeting of televised anti-drug PSAs. (Report No. CS-506-833). Washington, D.C.: Paper presented at the annual meeting of the Association for Education in Journalism and Mass Communication. (ERIC Documentation Reproduction Service No. ED 312 682)

Edell, J. A., & Burke, M. C. (1987). The power of feelings in understanding advertising effects. Journal
of Consumer Research, 14, 421-433.

Englis, B. G. (1990). Consumer emotional reactions to television advertising and their effects on message recall. In S. J. Agres, J.A. Edell, & T. M. Dubitsky (Eds.), Emotion in Advertising: Theoretical and Practical Explorations (pp. 231-253). Westport, Conn.: Quorum Books.

Feingold, P. C., & Knapp, M. L. (1977), Anti-drug abuse commercials. Journal of Communication, 27, 20-28.

Fennell, G. (1985). Persuasion: Marketing as behavioral science in business and nonbusiness contexts. In R. W. Belk (Ed.), Advances in Nonprofit Marketing, Vol. 1. Greenwich, Conn.: JAI Press.

Flora, J. A., & Maibach, E. W. (1990). Cognitive responses to AIDS information: The effects of issue involvement and message appeal. Communication Research, 17, 759-774.

Flora, J. A., Maccoby, N. & Farquhar, J. W. (1989). Communication campaigns to prevent cardiovascular disease: The Stanford studies (233-252). In R. E. Rice & C. K. Atkin (Eds.), Public Communication Campaigns, Second Edition, Newbury Park, Cal: Sage Publications.

Freimuth, V. S., Hammond, S. L., Edgar, T., & Monahan, J. L. (1990), Reaching those at risk: A content-analytic study of AIDS PSAs, Communication Research, 17, 775-791.

Geller, E. S. (1989). Using television to promote safety belt use (pp. 201-203). In R. E. Rice and C. K. Atkin (Eds.), Public Communication Campaigns, Second Edition, Newbury Park, Cal: Sage Publications.

Greenwald, A. G., & Leavitt, C. (1984). Audience involvement in advertising: Four levels. Journal of Consumer Research, 116, 581-592.

Hannemann, G. J., & McEwen, W. J. (1973). Televised drug abuse appeals: A content analysis. Journalism Quarterly, 50, 329-333.

Higbee, K. L. (1969), Fifteen years of fear arousal: Research on threat appeals: 1953-1968. Psychological Bulletin, 72, 426-444.

Hill, R. P. (1988). An exploration of the relationship between ADIS-related anxiety and the evaluation of condom advertisements. Journal of Advertising, 17 (4), 35-42.

King, K. W., & Reid, L. N. (1989). Fear arousing anti-drinking and driving PSAs: Do physical injury threats influence young adults? In James H. Leigh & Claude R. Martin, Jr. (Eds.), Current Issues and Research in Advertising, Vol. 12. Ann Arbor, MI: Division of Research, Graduate School of Business Administration, The University of Michigan.

Kotler, P., & Zaltman, G. (July 1971), Social marketing: An approach to planned social change. Journal of Marketing, 35, 3-12.

Krugman, H. E. (1965). The impact of television advertising: learning without involvement." Public

Opinion Quarterly, 29: 349-356.

Lynn, J. R. (1974), Effects of persuasive appeals in public service advertising, Journalism Quarterly, 51, 622-630.

Mackie, D. M., & Worth, L. T. (1989). Processing deficits and the mediation of positive affect in persuasion. Journal of Personality and Social Psychology, 57 (1), 27-40.

Maddux, J. E. & Rogers, R. W. (1982). Protection motivation and self-efficacy: A revised theory of fear appeals and attitude change. Journal of Experimental Social Psychology, 19, 469-479.

McAlister, A., Ramirez, A. G., Galavotti, C., Kipling, J. G. (1989). Antismoking campaigns: Progress in the application of social learning theory. In R. E. Rice and C. K. Atkin (Eds.), Public Communication Campaigns, Second Edition, Newbury Park, Cal: Sage Publications.

Murphy, P. E. (1985). Recruiting blood donors: A marketing and consumer behavior perspective (pp. 207-245). In R. W. Belk (Ed.), Advances in Nonprofit Marketing, Vol. 1, Greenwich, Conn.: JAI Press.

O'Keefe, G. J. (1989, August). "McGruff" after 10 years: Lessons about crime prevention and information campaigns. Paper presented at the Association for Education in Journalism and Mass Communication Annual Convention., Washington, D.C.

O'Keefe, G. J. (1990). The uses and effects of public service advertising. In Larissa A. Grunig and James E. Grunig (Eds.), Public Relations Annual, Vol. 2, Lawrence Erlbaum Associates, Hillsdale, NJ.

O'Keefe, M. T. (1971), The anti-smoking commercials: A study of television's impact on behavior, Public Opinion Quarterly, 35, 242-248.

Paisley, W. (1989). Public communication campaigns: The American experience. In R. E. Rice & C. K. Atkin (Eds.), Public Communication Campaigns, Second Edition, Newbury Park, Cal.: Sage Publications (pp. 15-38).

Petty, R. E., & Capioppo, J. T. (1990). Involvement and persuasion: Tradition versus integration. Psychological Bulletin, 107, 367-374.

Reardon, K. K., and Rogers, E. M. (1988). Interpersonal

versus mass media communication: A false dichotomy. Human Communication Research, 15 (2), 284-303.

Rice, R. E. (1989). Smokey Bear. In R. E. Rice and C. K. Atkin (Eds.), Public Communication Campaigns, Second Edition, Newbury Park, Cal: Sage Publications (pp. 215-217).

Robertson, L. S. (Autumn, 1976), The great seat belt campaign flop, Journal of Communication, 26, 41-45.

Rogers, E. M., & Storey, J. D.(1987). Communication Campaigns. In C.R. Berger & S. H. Chaffee (Eds.), Handbook of Communication Science, Newbury Park, Cal.: Sage Publications.

Rogers, R. W. (1975). A protection motivation theory of fear appeals and attitude change. Journal of Psychology, 91, 93-114.

Rogus, M. T., & Donohew, R. L. (1989). The influence of anti-drug messages of attitude-behavior conflicts (Report No. CS-506-831). Washington, D.C.: Paper presented at the annual meeting of the Association for Education in Journalism and Mass Communication. (ERIC Document Reproduction Service No. ED 311 504)

Roser, C. (1990), Involvement, attention, and perceptions of message relevance in the response to persuasive appeals, Communication Research, 17, 571-600.

Schachter, S., & Singer, J. E. (1962). Cognitive, social, and physiological determinants of emotional state. Psychological Review, 69 (5), 379-399.

Schmeling, D. G., & Wotring, C. E. (1976), Agenda-setting effects of drug abuse public service ads, Journalism Quarterly, 53 (4), 743-746.

Schmeling, D. G., & Wotring, C. E. (1980), Making anti-drug-abuse advertising work, Journal of Advertising Research, 20 (3), 33-37.

Schuster, C. P., & Powell, P. P. (1987). Comparison of cigarette and alcohol advertising controversies. Journal of Advertising, 19 (2) 26-33.

Smith, M. C., Frankenberger, K. A., & Kahle, L. R. (1990). Fear appeals in advertising: An emotional attribution approach (pp. 81-102). In S. J. Agres, J. A. Edell, & T. M. Dubitsky (Eds.), Emotion in Advertising: Theoretical and Practical Explorations. Westport, Conn.: Quorum Books.

Sternthal, B., & Craig, C. S. (1974). Fear appeals: Revisited and revised. Journal of Consumer Research, 1, 22-34.

Stiff, J., McCormack, M., Zook, E., Stein, T., & Henry, R. (1990). Learning about AIDS and HIV transmission in college-age students. Communication Research, 17, 743-758.

Struckman-Johnson, C. J., Gilliland, R. C., Struckman-Johnson, D. L., & North, T. C. (1990). The effects of fear of AIDS and gender on responses to fear-arousing condom advertisements. Journal of Applied Social Psychology, 20, 1396-1410.

Wicker, A. W. (1969). Attitudes versus actions: The relationship of verbal of verbal and overt behavioral responses to attitude objects. Journal of Social Issues, 25, 41-78.

Worth, L. T., and Mackie, D. M. (1987). Cognitive mediation of positive affect in persuasion. Social Cognition, 5 (1), 76-94.

Zajonc, R. B. (1980). Feeling and thinking: Preferences need no inferences. American Psychologist, 35 (2), 151-175.

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MEDIA, OPINION, AND GLOBAL WARMING: AN AGENDA-SETTING STUDY OF AN ENVIRONMENTAL ISSUE 1988 – 1992

A Paper Presented to the Science Interest Group of the
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INTRODUCTION

Scientists have been aware of the greenhouse effect for about 100 years. For nearly as long, they have also been concerned about the complications that might result from the human propensity to burn fossil fuels. Hard data on the build-up of atmospheric carbon dioxide dates to the 1950s in the form of direct measurement and back into geologic time in the form of ice core samples. Yet, the emergence of anthropogenic climate change as a public issue has been a recent development.

NASA's Dr. James Hansen is typically credited with launching global warming as a public issue. The drought summer of 1988 served as a poignant backdrop for Dr. Hansen's testimony before Congress that the weather had indeed started to shift under human influence. The media was hooked, as were the pollsters, and "greenhouse effect" became a household word.[1] But what has happened to global warming as a social issue since then? Considering even the more conservative scenarios for climate change, this is an important issue for communication researchers to examine.

An investigation of this issue might begin by seeking to simply measure some social reaction to the presence of information on the issue of global warming. Does the presence of global warming on the media's agenda contribute to the public's perception of the importance of the issue? This study will address that question.

THE LITERATURE: AGENDA-SETTING

In essence, this is an investigation of the relationship between the mass media and public opinion. For just over twenty years, mass communication researchers have been studying this relationship under the rubric of agenda-setting. This study embraces that approach.

Agenda-setting is a term applied somewhat loosely to a broad class of research which seeks to unveil relationships between various definitions of issue importance, or agendas. This line of inquiry grew out of sociological interest in the effects of the mass media in society. The

central question in most agenda-setting studies is: Do the mass media influence what we think about, and what we consider to be important?

Agenda-setting is just now maturing to the point where researchers are attempting to describe its natural history (Rogers & Dearing, 1988; McCombs, 1992). There are two developments in the history of agenda-setting which are clearly of primary importance to its evolution. Agenda-setting began as a strictly unidirectional model describing how the media affect the cognitions of individuals. Over time, however, the one-way nature of the model has evolved toward a systems perspective which allows that the agenda-setting effect flows back and forth among a number of social spheres.

Secondly, as researchers have tested for agenda-setting under a wide variety of situations it has become apparent that there are certain conditions which can serve to either enhance or retard the effect. These contingent conditions of agenda-setting include factors such as the obtrusiveness of the issue, its geographical scope and the nature of media attention to the issue.

In a developmental sense, the history of agenda-setting can be divided into three distinct stages. The first stage consists of a more or less literal application of Bernard Cohen's (1963) often cited observation about the press being better at affecting people's cognitive orientation to, rather than their affective interpretation of, current events. Cohen's insight can be traced to Walter Lippmann's *Public Opinion* (1922). Lippmann painted a picture of a "pseudo-environment" fabricated out of media reports. He argues that it is in this pseudo-environment that people form a basis for their actions in the real world.

This is the philosophical foundation of agenda-setting research. The first operationalization of the metaphor came in 1972 with McCombs and Shaw's *The Agenda-Setting Function of the Mass Media.* The researchers found a relationship between media coverage and public concern over election year issues and ignited a flurry of similar investigations (see for example: Funkhouser, 1973; Gordon & Heath, 1981; Iyengar et al., 1982). What ties these studies together is their unidirectional orientation. These stage one studies are based on a sender-receiver model with the media as sender.

The second stage of agenda-setting research employs a simple reversal of the first stage: the media as receiver. Studies have found that the media may influence one another (Reese & Danielian, 1989), may be strongly influenced by interests utilizing public relations (Turk, 1986) and may be moved by public opinion itself (Smith, 1987).These studies, and others like them, evoke a new openness to the issue of directionality in agenda-setting.

What is now emerging is a picture of agenda-setting as a more holistic social process involving information and effect exchanges between a host of spheres. The new conceptual framework being built around agenda-setting is put to a thorough test by Rogers, Dearing, and Chang (1991) in a study of the agenda-setting relationships surrounding the issue of AIDS in the 1980s. As they strive "toward a broader conception of agenda-setting" they look for relationships between a number of influential components of the issue of AIDS, including media, pollsters, scientists, and even reality.

The most important aspect of Rogers et al. is not contained in their results: it is the form of the study itself. Their approach represents the result of 20 years of evolution in agenda-setting research. This type of study characterizes the third stage of development in agenda-setting and may very well be its future methodological form.

As some researchers were discovering that agenda-setting operates by the rules of indirect and multi-directional communication, others were laboring to find the operational boundaries of the agenda-setting model: when does it function best? The 20 years of research has yielded a laundry list of contingent conditions. A number of these are important to this study.

Many researchers have found that obtrusive issues, ones experienced directly in the lives of individuals, are far less likely to be affected by agenda-setting (Zucker, 1978; Eyal, 1980; Winter et al., 1980; Blood, 1982). Palmgreen and Clarke (1977) found that agenda-setting is more likely to occur with national or international rather than local issues. Winter and Eyal (1981) determined that recent media attention has a much greater agenda-setting effect than long-term media attention. Schoenbach (1991) found that television tends to "spotlight" issues

which are being covered more thoroughly in the print media, having the effect of intensifying the public's agenda.

Two studies look at the dimension of issue controversy. Mazur (1981) found that in the case of technical issues (water fluoridation and nuclear power) media attention, regardless of its nature, garners negative public reaction to the controversial technical issue. In a more general application, Weiss (1992) concludes in a study that develops content analysis as an agenda-setting methodology that the media tend to focus the debate over an issue on a few arguments. The media also tend to polarize the controversy over an issue. It is through these mechanisms of stereotyping that the media transmit an agenda to the public. Weiss thus argues that the agenda-setting effect is most pronounced with controversial issues that can be reduced by the media to a few polar arguments.

Considering these factors, global warming is well suited for an agenda-setting study. It involves scientific, technical and political controversy: the pitting of one side against another which seems so elemental to garnering media coverage. It involves an element of fear with which to capture the public's attention. It is a national/international issue. And most importantly, from an agenda-setting perspective, it is unobtrusive. It seems relatively safe to say, even in the absence of supporting data, that most everything that most everyone knows about global warming has been transmitted, directly or indirectly, through the news media.

Global warming may be an ideal agenda-setting issue.

Given the utilization of the above findings, the statement of the problem for this study is represented by a single overarching research question. Is there a relationship between media attention to the issue of global warming and the level of the public's concern over that issue? Was there an effect?

This research question may be broken down into a set of three related hypotheses that take into account all of the possible conditions for detecting such an effect. This set of hypotheses will be evaluated against six relationships from a two by three factorial

combination. Two measures of public concern are matched with three measurements of news media attention. The results will be discussed in terms of these three hypotheses.

Hypothesis 1: Media coverage influences public concern. A significant correlation between the amount of media coverage and the public's concern about global warming exists when media coverage is observed at a time lag previous to public concern .

Hypothesis 2: Public concern influences media coverage. A significant correlation between the amount of media coverage and the public's concern about global warming exists when public concern is observed at a time lag previous to media coverage.

Hypothesis 3: Public concern and media coverage mutually influence one another. A significant correlation between the amount of media coverage and the public's concern about global warming exists in concert at the zero lag or when both media coverage and public concern are observed across a range of opposing time lags.

METHODOLOGY OF THE STUDY

This study uses a time series approach. One month units are used beginning with August 1988, and ending with May 1992.[2] Units of observation include public opinion and the three primary types of national news media: newspapers, news magazines, and network television.

The national newspapers selected for this study are *The New York Times, The Washington Post, The Los Angeles Times, The Christian Science Monitor*, and *The Wall Street Journal*. News magazines are represented by *Time, Newsweek*, and *U.S. News & World Report*. While it must be acknowledged that CNN is playing a significant role in defining the shape of television news, for the purpose of this study television is limited to the three national network news shows.

Most agenda-setting studies have used a simple story-count approach to measuring media attention. This study attempts to capture a more refined measurement of media attention through the use of weighted measures (Salwen, 1988). For each type of media, a measurement strategy was employed to take into account not only the duration or length of the story, but also

its prominence. These measurements are designed to take better account of the concept of salience — a concept central to agenda-setting research.[3]

The measurement of public concern, however, is somewhat more complex than counting and weighting column inches. When it comes to opinion polls as a time series, working with existing data requires some imagination and flexibility. Rare is the case where the same polling organization has asked the same question of the same sample type with uniform spacing through time. Gallup's "most important problem" question is one such rarity which has been used in agenda-setting research.

Creativity is a hallmark of agenda-setting research. It is in that spirit that the *concern index* is put forward. The concern index results from a secondary analysis of existing opinion poll data. The creation of this method of utilizing existing poll data is the primary ground-breaking dimension of this research.

These data are gathered from two sources. The *American Public Opinion Index* was searched under the headings of global warming, greenhouse effect, and any indicated cross-reference such as environment or weather. Additional polls were obtained through the same search strategy from the Roper Center for Public Opinion Research.

To be included, poll questions must meet three criteria. First, the question must primarily address global warming.[4] Second, the question must in some way tap the degree to which the respondent is concerned about the issue of global warming.[5] Third, the question must allow either a yes/no response or a scaled response ranging in some fashion from not concerned to extremely concerned.

The third criteria for question inclusion speaks to the nature of the poll questions on this topic and suggests that there are two ways of constructing the concern index. Both approaches will be used in this study and offered for comparison.

The first approach makes itself apparent when examining the poll questions. Only poll questions allowing for a true "most concerned" or "extremely concerned" response are included. These questions typically allow three or four response levels and may serve to

sample the proportion of individuals who are genuinely the most concerned. The index consists of the response frequency in the category indicating the highest level of concern.

The primary drawback of this approach is the more limited occurrence of this variety of poll question. Nonetheless, this method will be investigated. This index will be referred to as the "extreme concern index" or ECI.

Alternately, questions may be used which allow the responses to be divided into two categories: above and below average concern. Many of the questions are devised this way, for example: Do you think the greenhouse effect or global warming is a serious problem (yes or no)? The questions which make up the extreme concern index are also included in this index by combining the most concerned half of those questions (the two highest response categories). This index will be referred to as the "high concern index" or HCI.

In either case, the goal of this measurement of public opinion is to simulate, across time, the question: How concerned is society about global warming? The concern index is therefore the percentage of respondents who report themselves into either the above average (HCI) or the extremely concerned (ECI) category of the polls.

Several months have more than one appropriately formulated poll in them. When this is the case, they are averaged. For a few of the months the specific question of interest was asked: How concerned are you about global warming? When a month contains this specific question, other less direct questions are eliminated. There are a number of months which do not contain appropriate opinion polls. In order to meet the assumption of a time series, these missing cases were filled in by simple interpolation. [6]

The validity of the concern index might be a somewhat open question. Precisely what is being measured here? Agenda-setting research has typically sought to measure what people are thinking about rather than what they actually think. Calling this a "concern" index implies the opposite.

It is suggested that the concern index involves elements of both cognitive and affective response. An increase in the volume of media attention to global warming might trigger

increased public cognition/awareness that could translate into concern regardless of the specific content of the media coverage, as Mazur (1981) found with nuclear power. And simultaneously, the alarming content of the media coverage could serve to trigger public concern directly: a genuine affective response. Since the actual content of the media coverage is not being analyzed in this study, it is impossible to say to what degree either factor may play a dominate role.

Whether the effect of quantity or quality, the real essence of agenda-setting involves the concept of salience. Regardless of the true nature of the public response to media attention, it is proposed that this method of evaluating public concern or attention effectively captures the concept of salience. Verification of this method must await further research. However, the degree to which null findings can be rejected in this research will serve as an initial indication of the potential for this method.

The reliability of the concern index can be more directly addressed. Since the response categories clearly determine how the index is put together, the main source of difficulty concerning the reliability of the concern index involves the selection of questions to be used from the set of all questions found. To address this issue, a randomly selected set of five months were subjected to an intercoder reliability test. Using Scott's *pi*, an intercoder reliability of .83 was achieved (.75 is generally considered acceptable).[7]

DATA TRANSFORMATION AND ANALYSIS

To address the hypotheses, this study employs the set of statistical tools common to the current agenda-setting literature. First, the cross-lagged correlation coefficient is used to determine the strength of association between variables across time. The maximum lag utilized is six months. The bi-directional application of this test is applied to a 2 by 3 factorial arrangement (the two concern indices by the three media measurements). Six two-way relationships are thus evaluated.

To provide a base line, this test is first run on the raw data, with no estimated cases for either the HCI or the ECI. However, the assumptions of a time series are violated by the non-uniformity of the raw data. The next step in the analysis therefore involves the analysis of the time series after being made uniform by estimating missing cases by interpolation. Unfortunately, statistical propriety is still hampered by the non-stationary nature of the time series: they each contain some degree of trend.

Correlating time series which contain trend is a problem because given any two time series which might contain a trend, say IBM stock and a mosquito population, cross-lagged correlation will almost always yield a significant connection. Therefore, even when two time series are theoretically linked, any degree of causal inference is thwarted unless both series are first made stationary by some method (McCleary & Hay, 1980; Krull & Paulson, 1977; Chatfield, 1989).

Brosius and Kepplinger (1992) demonstrate a straightforward approach to this problem in a recent agenda-setting study. They suggest that the best procedure for removing the trend from a time series before cross-lagged correlation is to do so with a linear transformation. This is achieved by simply regressing the time series on its own serial component.[8] To accomplish this with the data on media as the dependent variable, for example, a regression equation using the case number as the independent variable (1-66 ascending through time) is computed. The residuals from this regression then constitute the new time series on which the cross-lagged correlations may be computed, interpreted or further analyzed.

Essentially, this procedure levels the playing field between the variables. The variance represented by long-term changes in the averages is removed. Therefore, the only variance being correlated is that which cannot be attributed to a long-term trend. This allows a clearer picture of any true relationships which may exist between the variables.

McCleary and Hay (1980) discuss the interpretation of such a series of cross correlation functions (CCF):

> Among other things, this exercise illustrates the interpretation of asymmetry in the CCF. *The CCF measures not only the strength of a relationship but also the direction.* When "X_t causes Z_{t+b}," evidence of the relationship is found at CCF(+b), in the positive half of the CCF, that is. When "Z_t causes X_{t+b}," on the other hand, evidence of the relationship is found at CCF(-b), in the negative half of the CCF. (p. 232, original emphasis)

The correlation coefficients may be graphed so that, in effect, the causal relationship between the two variables reverses at the origin of the graph. Krull and Paulson (1977) offer a method for how such a series of cross-lagged correlations may be graphed and interpreted:

> The pattern one would typically expect for an unambiguous set of cross-correlations . . . The abscissa in the graph gives the lag between the independent and dependent variables; the ordinate gives the magnitude of the correlation at a given lag. The correlations are nonsignificant (close to zero except for sampling variability) up to a point. Then the correlations show a significant negative or positive peak, followed by nonsignificant correlations. The time period between zero lag and the correlation peak is indicative of the causal lag between the independent and dependent variables. The spread of the peak is indicative of the duration of the effect. (p. 247)

In essence, each quadrant of the graph represents an independent and directional hypothesis (one-tailed tests). Significant correlations in the top left quadrant indicate a positive relationship in which concern influences media coverage. The bottom left quadrant indicates an inverse relationship where concern influences media coverage.[9] The right side of the graph is similarly arranged for the reverse condition where media coverage influences concern, either positively or inversely.

Thus, cross-lagged correlations are employed to initially address the hypotheses of across-time association between the various measures of media coverage and public concern. These correlations are drawn from the uniform (with estimations) and filtered (trend removed)

data. Correlations at any lag which are significant at the .05 level (one-tailed) will graduate to the next level of analysis.

Granger analysis has been employed by a number of agenda-setting studies to further refine the causal link suggested by cross-lagged correlations (see Smith, 1987; Rogers et al., 1991; Brosius & Kepplinger, 1992). Granger analysis states that X is a cause of Y when X predicts Y significantly better than Y predicts itself. Restated, the best predictor of today's public opinion is last month's public opinion. If media coverage predicts today's public opinion better than yesterday's public opinion does, then media coverage may be a cause of public opinion.

This intuitively attractive notion is investigated by first regressing Y on its previous value. Then Y is regressed on its previous value plus the value of X at a previous time. The two values for R^2 are then compared with an F test to determine if any predictive improvement is actually significant.[10] Significant improvement in R^2 by the complete model is compelling evidence that the exogenous variable exerts some form of influence.

Typically, Granger Analysis is employed independently of cross-lagged correlations and is applied to both directions of each lag that is being investigated. This, of course, produces a great many regression equations. This study departs from that approach somewhat by seeking to utilize the concept of Granger Analysis as a device for the verification of the significant cross-lagged correlations. To do this, a set of Granger regression equations is executed only for each significant relationship indicated by the set of cross-lagged correlations. If more than one lag from a quadrant yields a significant correlation each significant lag is first evaluated independently. All of the significant lags are then included in a single multiple regression equation. [11]

This method of analysis combines the simplicity of cross-lagged correlation with the more sophisticated and rigorous test for Granger causality. For the purposes of this study, this analytical method will be termed Granger Verified Cross-Lagged Correlation (GVCLC).

In addition to the analysis, simple graphical descriptions will be provided for each unit of observation. As well as graphing the raw data, each measurement will also be estimated through the use of a simple moving average (12 month term). These data will serve to illuminate the nature of the media coverage and public concern over this issue and will be utilized in the discussion.

PRESENTATION OF THE RESULTS

1. Trends [FIGURES 1 - 5 HERE]

Figures 1 through 5 illustrate the nature of media attention and public concern over the issue of global warming. Media coverage and public concern over global warming have apparently experienced a variety of cycles. While there are differences between the three types of media, on average all three media types do display a similar cycle of attention.

The relative volatility of the television and magazine data as compared to the newspaper data is partially a factor of the number of individual media being examined (three each for television and magazines, but five for newspapers). Also, sheer volume plays a role since the magazines are weekly while the other media publish or broadcast daily.

The linear equations used to eliminate trend are superimposed on each raw data display. Overall, television and newspaper attention to global warming has increased slightly for the period of the study, while magazine attention has remained about flat. Of course it is important to remember that a regression line is influenced strongly by end points and by extreme values. It is interesting to note that little long-term trend is apparent in either the HCI or the ECI.

Just by "eyeballing" the set of trend lines one can see that television has the most similarity to both the ECI and the HCI. A more rigorous empirical examination of such relationships follows in the next section.

2. Correlations [TABLE 1 HERE]

What influential relationships may exist between these time series? As a point of departure, Table 1 presents the set of cross-lagged correlations derived from the raw data, prior to estimating missing cases and filtering out trend. These data suggest feedback relationships involving each form of media and the measures of public concern. But because of the various difficulties involving time series and correlations, these data are of limited utility. Nonetheless, they are presented in conjunction with a question: Does further analysis agree with these results? This question will be returned to after the presentation of the filtered correlations.

[FIGURES 6 - 8 HERE]

Figures 6 through 8 present the same set of cross-lagged correlations derived from the treated data. These results are presented in the graphical format suggested by Krull and Paulson (1977) previously described. The horizontal middle zone represents the rejection region in which significance at the .05 level was not achieved.

Overall, there are significant positive correlations involving television and the ECI, newspapers and the ECI, and finally magazines and the HCI. The relationship between television and the ECI (figure 6) suggests a feedback relationship of four months duration with a bias toward public concern influencing television coverage. The only significant relationship between newspapers and the ECI (figure 7) occurs where public concern leads newspaper attention by two months. The only significant correlation involving the HCI occurs with that measure of public concern leading magazine attention by four months (figure 8).

Since figures 6 through 8 essentially represent a matrix of 78 correlations tested at the .05 level, it is necessary to consider the possibility that about 4 of the 7 significant correlations are the result of random probability. This problem can be dispatched with two observations. First, the probability of as many as 4, or even more than 1 of the potential random events being contained within the full set of 7 is small. Further confidence can be derived from the fact that all of the significant correlations are positive. A random influence should produce an equal number of negative and positive correlations.

Because of the generally experimental nature of this measurement of public opinion, it may be useful to compare the results arrived at with the estimated and filtered data with the results from the raw data. Of the fourteen significant correlations indicated by either the treated or untreated data, three are in complete agreement.[12] Another three are significant in the raw analysis but are just shy of significance in the filtered analysis.[13] One is significant in the filtered analysis but just fails the test in the raw approach.[14]

Three of the correlations are in discord: significant in the filtered analysis but far from significant on the raw series.[15] However, these three are clustered about the mutually agreed upon relationships for television and so don't prompt much concern. Treating the data may have caused four other relationships to be overlooked (it is interesting to note that this set includes the only significant negative correlations).[16] These correlations may have been caused by the presence of trend.

Taking all of this into consideration, there seems to be sufficient agreement between the two treatments to suggest that the estimation of missing cases and the filtering of the data did not create relationships where none exist.

3. Granger Verification [TABLE 2 AND FIGURE 9 HERE]

The results of the cross-lagged correlation of the filtered data suggest that there are four relationships to be investigated further: television causes ECI; ECI causes television; HCI causes magazines; ECI causes newspapers. The veracity of each of these relationships is further tested through Granger Verification. Table 2 shows the application of the Granger Verification and Figure 9 presents the significant results of that verification in a relational schematic.

Overall, television coverage of global warming and public concern (as measured by the ECI) appear to be in a feedback relationship. Public opinion's impact on television seems to be somewhat stronger and of greater duration than the inverse arrangement. There is evidence that

the newspapers utilized in this study follow more than lead. Finally, magazine coverage of global warming has little connection with public opinion.

The effects of multicollinearity must be considered for the case within the Granger Verification that reports a significant incremental R^2 which is derived from multiple regression. In the case of concern influencing television across a three month lag, the independent variables are themselves correlated.[17] This result should be accepted provisionally.

4. Hypotheses

The first hypothesis, which states that media coverage influences public concern, is not explicitly supported by the results of this study. There is no single lag in which media attention significantly increments public concern in the absence of the reverse effect.

The second hypothesis, which mirrors the first, does have explicit support in the case of public concern influencing newspaper coverage at a lag of two months. There is also support for public concern exerting a diffuse influence over television coverage across a period of three months.

The third hypothesis, a prediction of mutual influence, receives the strongest support in the case of television coverage and public concern over global warming. It is difficult to ascribe much meaning to the greater directional influence at the zero lag for the influence of public concern over television coverage. However, it is interesting to note that this bias is in the direction that is further supported by the three-month-long diffuse influence of concern over television. However, since all of the opinion polls were not conducted at the same time during each month, and the measure of media attention is a sum total for the entire month, the bias within the zero lag has little empirical support for meaning in and of itself. [18]

DISCUSSION AND INTERPRETATION

1. Limitations and Opportunities

The results of this study are perhaps most notable given the nature of the measurement of public concern developed in this study. The success of combining the response rate of the "extremely concerned" category from various polls suggests that this approach may actually measure what it is purported to. Observing variance in the extreme category of the polls appears to be more sensitive than looking at the above average amounts of concern. It should be noted that the polls included in the ECI are more uniform in nature (all employ some form of a Likert scale) than the polls used to construct the HCI.

Aggregating various opinion polls across time may be a useful technique for agenda-setting research. Work toward refinement and validation of this technique is warranted and is perhaps the most important direction for further investigation suggested by this study.

Conversely, it must also be stressed that such utilization of poll results has not been attempted before. This is clearly the weakest point of this study. An important related issue which bears opportunity for further investigation is that of independence between the polls and the media attention. From that observation one must move on to consider the role of opinion polling in the process of defining news. Do the opinion polls help serve to create a feeding frenzy, or a "hoopla effect?"

Overall, it is perhaps not so surprising is that there is an effect detected. Given the nature of the issue of global warming, the news media must play an important role in the social definition of global warming. But it should still be stressed that these results do not rule out the possibility that all of the significant relationships indicated here result from the influence of another unknown variable(s) or processes. It could be argued that agenda-setting research in mass communication suffers from a fetishism of determinacy: desperately seeking "causes." The thorny issues of causality aside, some *relationships* do seem to exist in this case.

Finally, it is interesting to note the hierarchy of effect which exists within the three specific media examined. Television clearly displays the greatest relationship with public

concern, newspapers have a more limited relationship, and magazines have no relationship. To some degree, this is probably a consequence of this study's design. The national surveys used for the ECI most closely match the audience for television. However, another factor may also be in play. It may also be that television simply leads the pack and offers the most immediate and responsive coverage of the news. Magazines have been used as an "index" of overall media coverage in past studies. Newspapers may also play a similar function to some degree.

Further research considering intermedia agenda-setting relationships would help to settle this question. Did the television coverage influence subsequent newspaper coverage? Such a finding might also strengthen the validity of the finding that public concern influences newspaper coverage two months later by suggesting the possibility of that influence being an artifact of the influence of television over newspapers.

2. Interpretation, Relationship to Other Research and Conclusions

This study bears out many aspects of previous work done in agenda-setting. The use of an unobtrusive international issue undoubtedly contributed to the detection of an effect. Winter and Eyal's (1981) finding that recent media attention has a much greater agenda-setting effect than long-term media attention would seem to be born out by the strength of the relationship between television and the ECI. Finding a strong relationship despite the considerable noise within the data sets would suggest a greater responsiveness to the immediate effects over the long term effects. Schoenbach's (1991) finding that television tends to "spotlight" issues which are being covered more thoroughly in the print media may also be evidenced by these results.

It is more difficult to apply Mazur's (1981) contention that the mere presence of a controversial technical issue in the media tends to garner negative public reaction. Can concern, or even attention, be considered a negative reaction? Mazur's observations probably cannot be applied to the issue dynamics of global warming until the media is covering controversial solutions being proposed by science and technology. For now, the issue is still a debate over credibility and the question, Is global warming real?

The impact of public opinion on television coverage may indicate, as Rogers et al. (1991) suggest, that the polling process may be influencing media coverage. In their study of the issue of AIDS, they found a reciprocal relationship between media coverage and the amount of polling on the issue that "suggests that media organizations sponsored polls that asked questions about AIDS and then created news stories (often several part stories) based on the poll results (p. 43)."

Another interesting aspect of these results is the relative strength of the television-opinion relationship as compared to the print-opinion relationship. Two possible explanations for this are advanced. Some researchers believe that television has more social authority than other media (Brosius & Kepplinger, 1990, 1992; Schoenbach, 1991; Hill, 1985; Frank & Greenberg, 1980). Iyengar and Kinder (1987) make a case for the agenda-setting power of television news: "Television news is not only distinctive in its focus . . . but also in its presentation. Television news is news without ambiguity, equivocation, or uncertainty. It is, or poses as, authoritative news. Most Americans, most of the time, seem to find this authoritative pose irresistible (p. 126)."

A possible explanation may also be found in the fact that the sample of the national surveys used in this study most closely matches the audience for the national network news. There is a more universal exposure to television news than to any of the specific print outlets examined.

Issues of methodology aside, what can be said of the life course of the issue itself? Perhaps it could be said that the issue of global warming has enjoyed its day in the sun. Puns aside, a serious problem presents itself if one considers that, in terms of scientific understanding, there was probably little substantive change in the issue of global warming during the span of this study. Science has its own time table. While it is easy to understand the spike of sensational coverage associated with Dr. Hansen's testimony during the summer of 1988, the later build-up and eventual decline of coverage — and subsequent concern — presents a more complex problem. What forces might drive such a cycle?

To consider the forces at work behind this issue it will be instructive to first look at some additional information about the issue of global warming. First, it is necessary to address the question of scientific consensus. How controversial is global warming among the scientists?

On one hand, a modest (n = 22) survey of environmental scientists asked about the reality of human induced global warming. The results suggest a fairly strong agreement on the issue (Slade, 1990). Fully 81 per cent felt confident that there would be some form of climate change caused by human activity. But there was unanimous agreement that science is still in for "some surprises." The majority believe that the early stages of such changes have already been observed and that current computer models are useful tools for evaluating climate change.

On the other hand, a more thorough survey (n = 400) of climatic, oceanic and atmospheric scientists conducted in 1992 by Gallup for the Center for Science, Technology and Media suggests less certainty about some aspects of the issue (Lichter & Lichter, 1992). The survey reports that only about half of the scientists (51%) feel that climate change is well understood. Most (90%) describe it as "an emerging science." But, the survey reports that more feel that global temperatures have increased (60%), and that nearly half think there will be a significant (two degrees Celsius) increase in global temperature (47%). However, only a few (19%) are sure that such increases in global temperature are clearly the result of human activity rather than natural fluctuations.

Science is a culture of probability. These questions may say more about scientific faith in the research results from complex studies than about gut feelings. Beyond the caveats, two thirds of the scientists (66%) reported that they personally feel that human activity has already begun to warm the planet.

Global warming is a confounding issue. Its dimensions involve high economic and environmental stakes, scientific uncertainty, politics, public perceptions of risk, and the vagarious nature of mass communication. On that last dimension, the Gallup survey reports that 82 per cent of the scientists follow popular media reportage "very" or "fairly" closely.

Unfortunately, just less than a third feel that the media are doing a "good" or "excellent" job of reporting on global warming (fair, 46%; poor, 24%).

Further insight as to what may be going on with the issue of global warming is provided by a recent study published by The Center for Media and Public Affairs (Lichter & Lichter, 1992). Their research takes a look at the media representation of this issue in light of the type of sources providing information. They use the same set of print outlets as does this study, and cover the time period of January 1985 to August 1992.

The study suggests that the flurry of media coverage leading up to the issue's peak in 1990 was the result of a sharp increase in Bush administration sources vigorously challenging the scientific sources. As the report states, "the scientific debate became enmeshed in political struggles (p.2)."

Additional evidence supporting this charge is supplied by Miller's (1990) content analysis of the emergence of global warming as an agenda item from 1987 to mid 1989. By quarters, he examines the types of sources represented in Associated Press stories mentioning global warming. By dividing the period in three phases he found a significant decrease in scientists being used as sources in stories (dropping from 91% of the stories to 66%). Concurrently, there was a significant increase in the number of stories using the President as a source (from 12% of the stories to 40%). Congressional sources rose and fluctuated (32% to 49% to 42%).

These studies suggest that political interests may have sought to take control of this issue and effectively gag the free flow of scientific information on an important environmental issue. This interpretation of the events would suggest that the experts were squeezed out by the politicians, the media became saturated and lost interest, and the issue went into decline.

On a less nefarious note, one might ask if the shifting salience of global warming was just part of a larger process involving environmental issues in general. Many authors have addressed the rise and fall of environmental attitudes over long time spans (for an excellent overview: Dunlap, 1992). While shifts in poll data for the umbrella idea of "the environment" can't be addressed here, it can be reported that, at least for the set of newspapers utilized in this

study, the number of stories indexed by the word "environmental" remained fairly constant over the period 1990-1992.[19]

Nonetheless, cyclic attention to specific issues may simply be typical of American public opinion and media coverage. Downs (1972) offers his "issue-attention cycle" as an explanation for such coming and goings of news coverage and public concern. In this theory he suggests that there are typically five stages to the life of a given issue.

1. **Pre-problem**. "This prevails when some highly undesirable social condition exists but has not yet captured much public attention, even though some experts or interest groups may already be alarmed by it."

2. **Alarmed discovery, euphoric enthusiasm**. "As a result of some dramatic series of events, the public suddenly becomes both aware of and alarmed about the evils of a particular problem." This is combined with a reaction of overconfidence in society's ability to discover a solution. This "euphoric enthusiasm" is often propagated by political leaders.

3. **Realizing the cost**. "A gradually spreading realization that the cost of solving the problem is very high indeed." The public also realizes that the problem is being caused by a condition which is providing benefits to a large part of society.

4. **Gradual decline of interest**. Three reactions occur. Some people become discouraged. Some suppress attention out of fear. Others simply get bored. Often, all three reactions operate to varying degrees. Meanwhile, another issue may be on the rise.

5. **Post-problem**. "A prolonged limbo — a twilight realm of lesser attention or spasmodic recurrence of interest." (Downs, 1972, pp. 38-50)

Does the issue of global warming from 1988 to 1992 demonstrate Down's issue-attention cycle? The time prior to 1988, when global warming was primarily the concern of scientists, might be characterized as the pre-problem stage. The alarmed discovery of Dr. Hansen's testimony seems to match well with former President Bush's euphoric pledge to counter the greenhouse effect with "the White House effect."[20] Did this period characterize stage two?

The science bashing carried on by then Chief of Staff Sununu may have promoted the idea that solving the problem of global warming would bear an enormous price tag, even though many experts disagreed. Downs stage three? At the time when the trend slope becomes negative the nation was sliding into increasingly difficult economic conditions, was captivated by a Desert Storm, and began anticipating the most unusual presidential election season in recent memory. Fear, boredom, new issues to attend to — stage four?

And what of the fifth stage in the cycle? Is the issue of global warming now entering "a prolonged limbo — a twilight realm of lesser attention?" News coverage of the global warming debate was on the upswing in mid-1992, primarily in response to the "Earth Summit" in Brazil. Is this global warming's last gasp? Will a change of attitude in Washington and an emerging generation of environmentally aware young adults give this issue a second wind?

Rogers et al. (1991) point out that issues in the media are kept alive as new information allows an issue to be continually redefined as "news." Global warming's faltering representation in the media may simply be the result of the nature of the issue itself: scientific progress has been slow and there's been nothing substantially new to report. If this is the case, then the relationship between the media and public opinion poses some difficulty for society as it faces the possibility of coping with chronic environmental problems like global warming.

Yet, rushing to blame the media for "causing" the dismissal of this issue belies the complicated nature of the relationship between media and opinion. Judging from the results of this study, the media and the public worked *together* to dismiss this topic from the agenda. In this light, other questions must be raised. Can society attend to and appraise a potential problem before it reaches the point where it is the cause of regular "news?" Can the news media report topics which may not have a high audience interest rating?

This line of questioning assumes, of course, that the question of global warming has *not* been socially appraised. Was global warming evaluated by the public mind and dismissed? Perhaps the information presented during the life cycle of this issue simply failed to win

sufficient converts to allow it to be defined as a social problem — by whatever social mechanism one wishes to subscribe to.

Of course it may be an error to conclude that the public is not concerned about this issue. Throughout the ups and downs of this time series the concern level of both indices has been reasonably high: never below 50 per cent for the HCI and never below 25 per cent for the ECI. Nonetheless, the apparent fragility of public concern for this issue, and for issues of this variety in general, is enough to give one pause.

As Lippmann points out, "each generation writes its own history of the world." A conclusive description of society's response to the threat of global warming is perhaps something that can only be written by the generation which either looks back on it as folly, or suffers its fury.

NOTES

[1] The use of "greenhouse effect" and "global warming" presents a semantic condition that can be confusing. To clarify, the greenhouse effect is the proximate cause of global warming. The scientific concern involves the degree to which the naturally occurring greenhouse effect is being enhanced by human activity. This human-enhanced, or anthropogenic, global warming is in turn the proximate cause of the real villain of the story: large-scale and long-term climate change with its associated disruption of Earth's natural and social systems. This paper will generally refer to this overall construct as global warming.

[2] These dates are dictated by the existence of opinion poll data.

[3] Details of the weighted measurements are reported here:

Newspapers. Only news stories are used in this study: any content containing references to global warming or the greenhouse effect, excluding editorials, opinion columns, letters to the editor and advertisements. Book reviews are included. Lengths are taken from the *National Newspaper Index*.

Each of the five newspapers utilized in this study have a number of column formats. The lengths reported in the *National Newspaper Index* do not take the column width into account. In order to make a consistent measurement across the various papers, each column configuration was converted to a standard. To establish and apply the conversion factors it is necessary to obtain copies of each story. The six column format of *The New York Times* is used as the basis for the standard column inch. Therefore, every other format was assigned a conversion factor to unify all story lengths. That conversion factor is applied to the story length reported in the *National Newspaper Index*.

These uniform inch measurements are then assigned a weighting factor to account for the prominence of their display: front page stories are multiplied by four; stories inside the first section are multiplied by three; stories on the front of any inside section are multiplied by two; stories inside any interior section are multiplied by one.

Style varies a great deal in regard to headline display and the use of art. For this reason, headlines and artwork are not being taken into account.

Magazines. A complete listing of stories from these magazines is gathered using the *Readers Guide to Periodical Literature*. Column inch measurement for the magazines is unified in the same manner as the newspapers. All column widths are converted to equal the three column format in *U.S. News & World Report* (40 words per inch).

Magazines are not structured with a clear hierarchy in the same way that newspapers are, the primary exception being the cover. This is due to the more rigid topical departmentalization of magazines. Therefore, magazine story lengths are not multiplied by a positional factor.

Magazines do, however, make more use of art and headline treatment as a percentage of display area. Therefore, the column inch measurement of the magazines includes both headline display and art. Further, if a story is featured on the cover, one additional page worth of copy is counted. No other adjustment is made.

Television. To access this information, *Television News Index and Abstracts* was consulted. This index, published by the Vanderbilt Television News Archives of Vanderbilt University, provides all of the data necessary for this analysis. Three elements go into the measurement of the television coverage: duration, position, and exclusivity of topic. All three may be directly observed from *Television News Index and Abstracts*.

Duration is the length in decimal minutes of the news segment. This number is multiplied by a positional factor according to where in the half-hour broadcast the news segment begins: multiply by three for the first third, by two for the second third, by one for the last third.

It was observed that a significant subset of the television segments combined two or more related topics into one report. This condition has to be taken into account, since a one minute story mentioning global warming at the end does not equate to a one minute story exclusively about global warming.

This differentiation is based on the heading in the abstract. Stories that have headings that list greenhouse effect as the exclusive or primary topic are assigned a weight of two. If greenhouse effect is among several topics listed in the heading, the story is assigned a weight of one. A few stories appear that do not list global warming in the heading but which briefly refer to it in the abstract text. These measures are reduced by one-half. For example, a February 8, 1989, ABC News "American Agenda" segment is about the environment and features the issue of the Arctic National Wildlife Refuge in Alaska. The only link to global warming comes at the end where a source comments that "oil drilling and global warming are incompatible."

[4] For the majority of the poll questions, global warming is the exclusive topic. However, questions may be included which address global warming in conjunction with air pollution in general. Also, questions might be included which address global warming in the context of national security or the economy.

[5] There is some latitude in this matter. A question might ask: how much attention are you paying to news reports about global warming; how much of a problem do you think global warming will be for your children; are you willing to pay more taxes to control global warming; are you willing to accept the risk of nuclear power to reduce the threat of global warming; or simply, how concerned are you about global warming?

[6] Estimated cases account for 34 and 54 per cent of the two indices constructed here (ECI and HCI, respectively). The vast majority of the poll questions utilized are national samples executed as telephone surveys. However, in order to help meet the assumptions of a time series, state and regional surveys have also been included. This amounted to a total of 8 such surveys, only five of which were not averaged with national surveys to arrive at the month's value.

[7] A more detailed discussion of the methods employed in this paper is presented as a chapter and an appendix in the author's master's thesis (Trumbo, 1993), available either through Interlibrary Loan or from the author directly. Contact the journalism department at Iowa State University, or consult the AEJMC Directory.

[8] Non-linear transformations are inappropriate, according to Brosius and Kepplinger, because they interfere with subsequent stages of this analysis. Specifically, they lead to large negative correlations in the Granger Analysis.

[9] This relationship is not well represented in the agenda-setting literature. However, it is clearly possible that a high degree of media attention could serve to reduce subsequent public concern by suggesting that the problem is being attended to by experts and the government.

[10] The specific form of the F test is one for the comparison of complete and reduced regression models:

$$[F\ df = k\text{-}g/n\text{-}k\text{-}1] <> (R^2_c - R^2_r / k - g) / (1 - R^2_c / n\text{-}k\text{-}1)$$

where k = independent variables in the complete model and g = independent variables in the reduced model.

[11] This does present problems of multicollinearity. For the cases where this method is employed, correlations between the independent variables are also reported.

[12] HCI (t-4) causes magazines; ECI (t-2) causes newspapers; ECI and television feedback at (t=0).

[13] Magazines (t-1) cause HCI; ECI (t-3) causes newspapers; Newspapers (t-6) cause HCI.

[14] ECI (t-3) causes television.

[15] ECI (t-2) (t-1) causes television; television (t-1) causes ECI.

[16] Television (t-3) causes HCI; and the following inverse relationships: ECI (t-4) causes newspapers, HCI (t-2) causes magazines; Magazines (t-5) cause HCI.

[17] For TV as the dependent variable and the ECI (t=0)(t-1)(t-2)(t-3) as independent variables the correlations are (* sig at .05, ** sig at .01 in two-tailed test):

ECI	(t-1)	(t-2)	(t-3)
(t=0)	.54**	.30*	-.002
(t-1)	—	.54**	.30*
(t-2)	—	—	.52**

[18] Further, Brosius and Kepplinger (1990) present evidence suggesting that television exerts its greatest influence within a two week period.

[19] Infotrac reports under "environmental": 1990 = 3496; 1991 = 3188; 1992 = 3183.

[20] Bush's campaign comments are reviewed on the ABC News, 12/27/89.

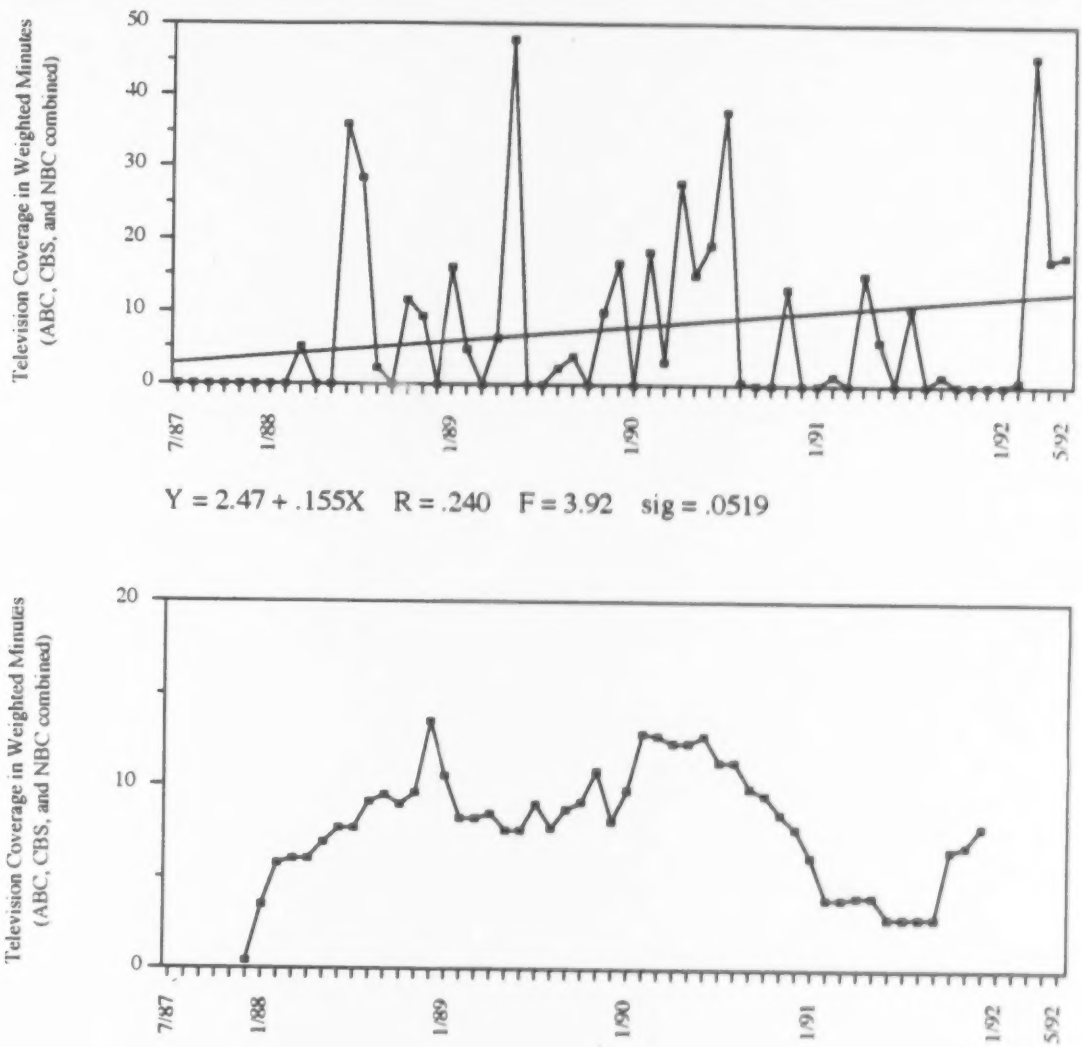

FIGURE 1. TELEVISION COVERAGE
Raw time series (top) and modeled time series (bottom, 12 month moving average) for television coverage of global warming from January 1987 to May 1992. Beginning and ending cases are lost in the moving average. The linear trend utilized in the pre-whitening is plotted on the raw series with the equation appearing below that series.

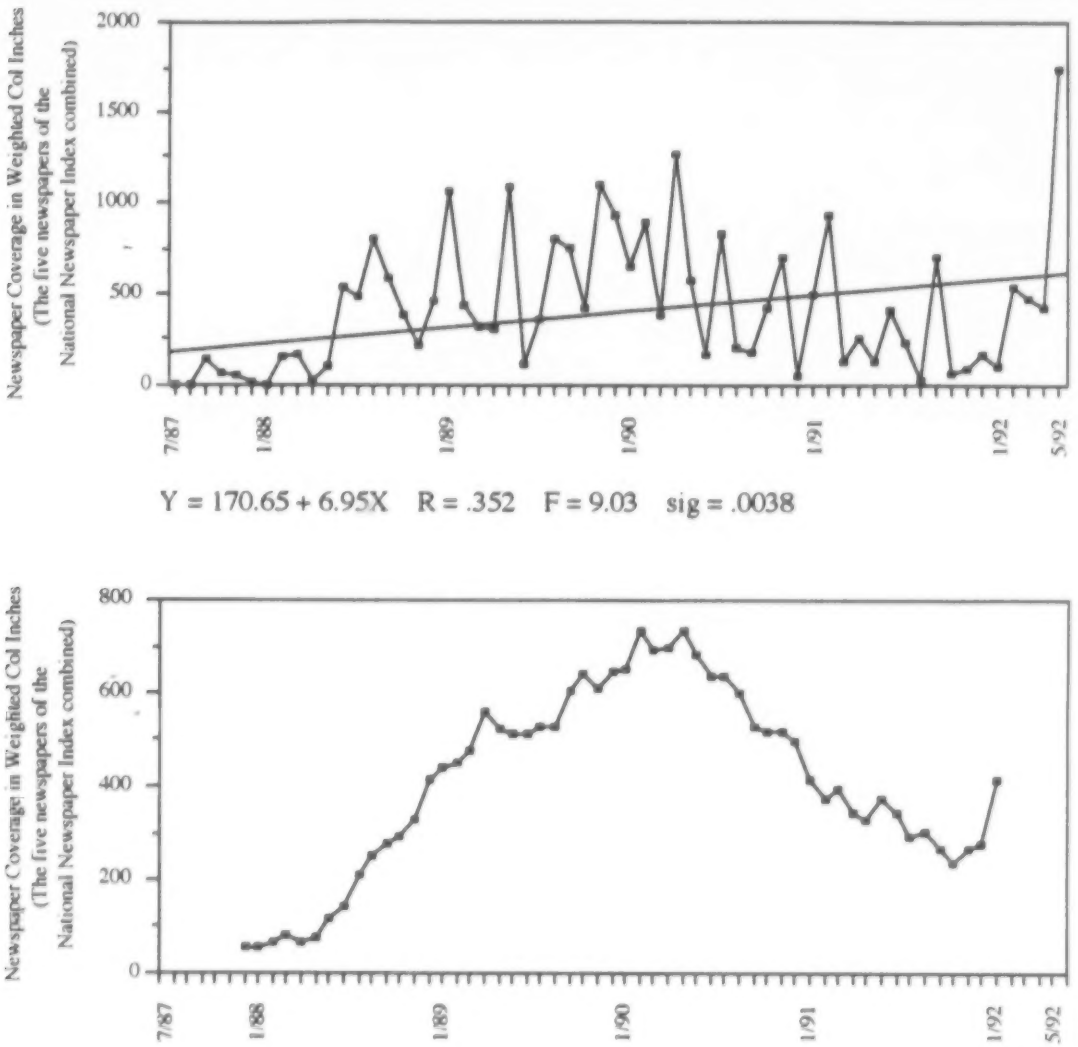

FIGURE 2. NEWSPAPER COVERAGE
Raw time series (top) and modeled time series (bottom, 12 month moving average) for newspaper coverage of global warming from January 1987 to May 1992. Beginning and ending cases are lost in the moving average. The linear trend utilized in the pre-whitening is plotted on the raw series with the equation appearing below that series. Newspapers included are *The New York Times, The Christian Science Monitor, The Washington Post, The Wall Street Journal* and *The Los Angeles Times.* Collectively known as the *National Newspaper Index.*

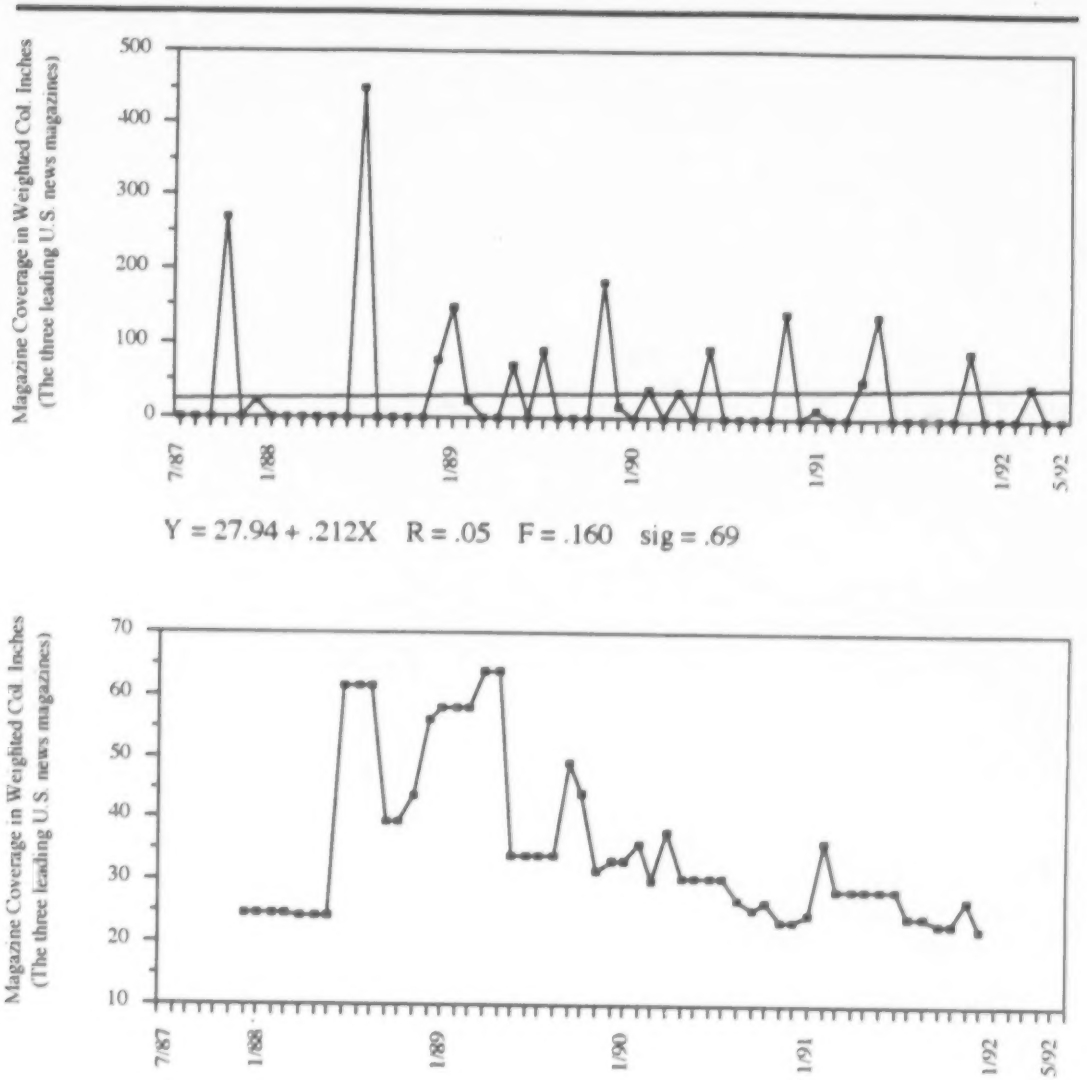

FIGURE 3. NEWS MAGAZINE COVERAGE
Raw time series (top) and modeled time series (bottom, 12 month moving average) for news magazine coverage of global warming from January 1987 to May 1992. Beginning and ending cases are lost in the moving average. The linear trend utilized in the pre-whitening is plotted on the raw series with the equation appearing below that series. Magazines included are *Time, Newsweek,* and *U.S. News & World Report.*.

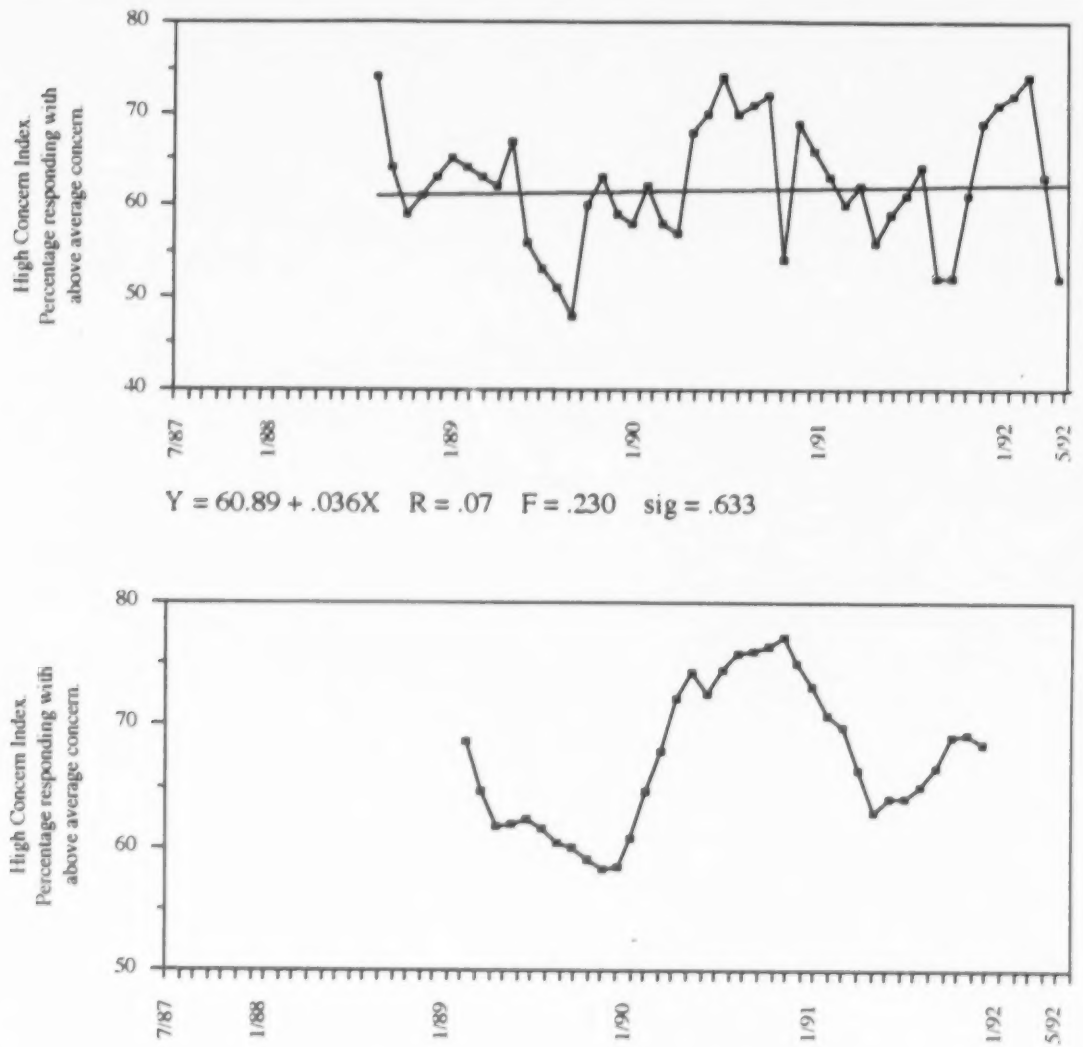

FIGURE 4. HIGH CONCERN INDEX
Raw time series (top) and modeled time series (bottom, 12 month moving average) for the high concern index of global warming from June 1988 to May 1992. Beginning and ending cases are lost in the moving average. The linear trend utilized in the pre-whitening is plotted on the raw series with the equation appearing below that series. The high concern index is the percentage responding with above average concern to poll questions on global warming.

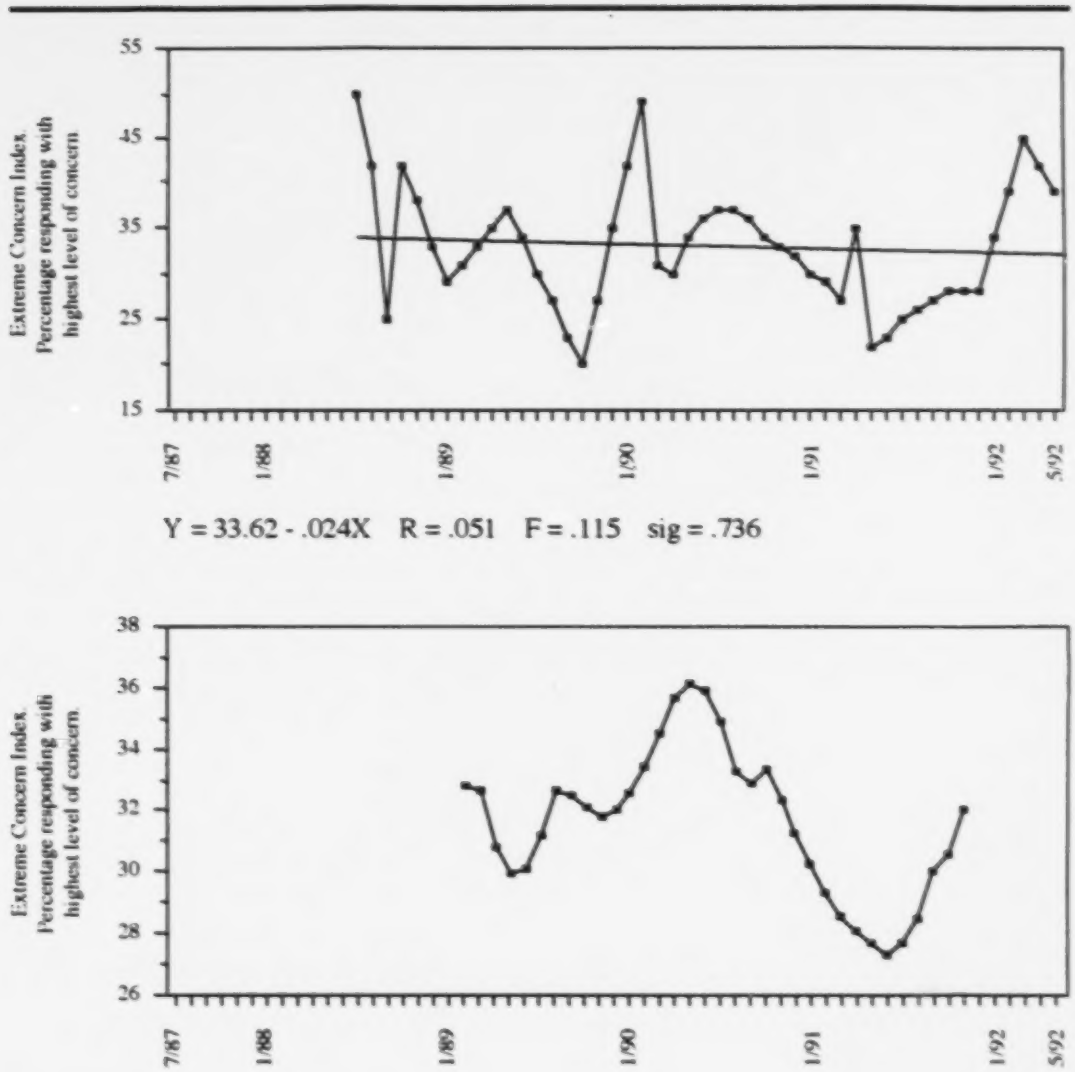

FIGURE 5. EXTREME CONCERN INDEX
Raw time series (top) and modeled time series (bottom, 12 month moving average) for the extreme concern index of global warming from June 1988 to May 1992. Beginning and ending cases are lost in the moving average. The linear trend utilized in the pre-whitening is plotted on the raw series with the equation appearing below that series. The extreme concern index is the percentage responding with the highest concern level in poll questions on global warming.

TABLE 1. CROSS-LAGGED CORRELATIONS ON UNFILTERED AND UNESTIMATED DATA

This set of correlations was produced using the original data set for this study prior to the inclusion of any estimated cases or any pre-whitening technique. These correlations are included as a form of benchmark only. Because each time series contains some degree of trend, causal linkages between unfiltered series cannot be inferred.

t - 6	t - 5	t - 4	t - 3	t - 2	t - 1	t - 0	t - 1	t - 2	t - 3	t - 4	t - 5	t - 6
			High Concern causes Television				Television causes High Concern					
-.1588	-.2346	.0804	.1225	-.0063	-.0027	.2828	.1829	.1139	.3069*	-.2574	.0424	.2013
			Extreme Concern causes Television				Television causes Extreme Concern					
-.2493	.2811	-.1594	.3216	.1847	.1518	.5060**	.1270	.3138	.0296	.1758	-.3475	-.1771
			High Concern causes Newspapers				Newspapers cause High Concern					
.1766	.0355	.0405	-.0768	.0469	-.0303	.1554	-.1317	.0512	.1554	-.2029	.1485	.3903*
			Extreme Concern causes Newspapers				Newspapers cause Extreme Concern					
-.2396	.3246	-.3884*	.4348*	.5050*	-.1330	.3507	.0060	.2031	.0871	.0256	-.0813	.0699
			High Concern causes Magazines				Magazines cause High Concern					
.1618	.1245	.3696*	.2792	-.4998**	-.2329	-.0279	.3462*	-.0179	-.0517	-.0571	-.3687*	.0391
			Extreme Concern causes Magazines				Magazines cause Extreme Concern					
-.1350	.2817	.1313	.3572	.0550	-.0791	-.0666	.1704	-.1925	.3008	.0132	-.1901	-.1745

* $p < .05$ ** $p < .01$ High Concern n = 30 Extreme Concern n = 21

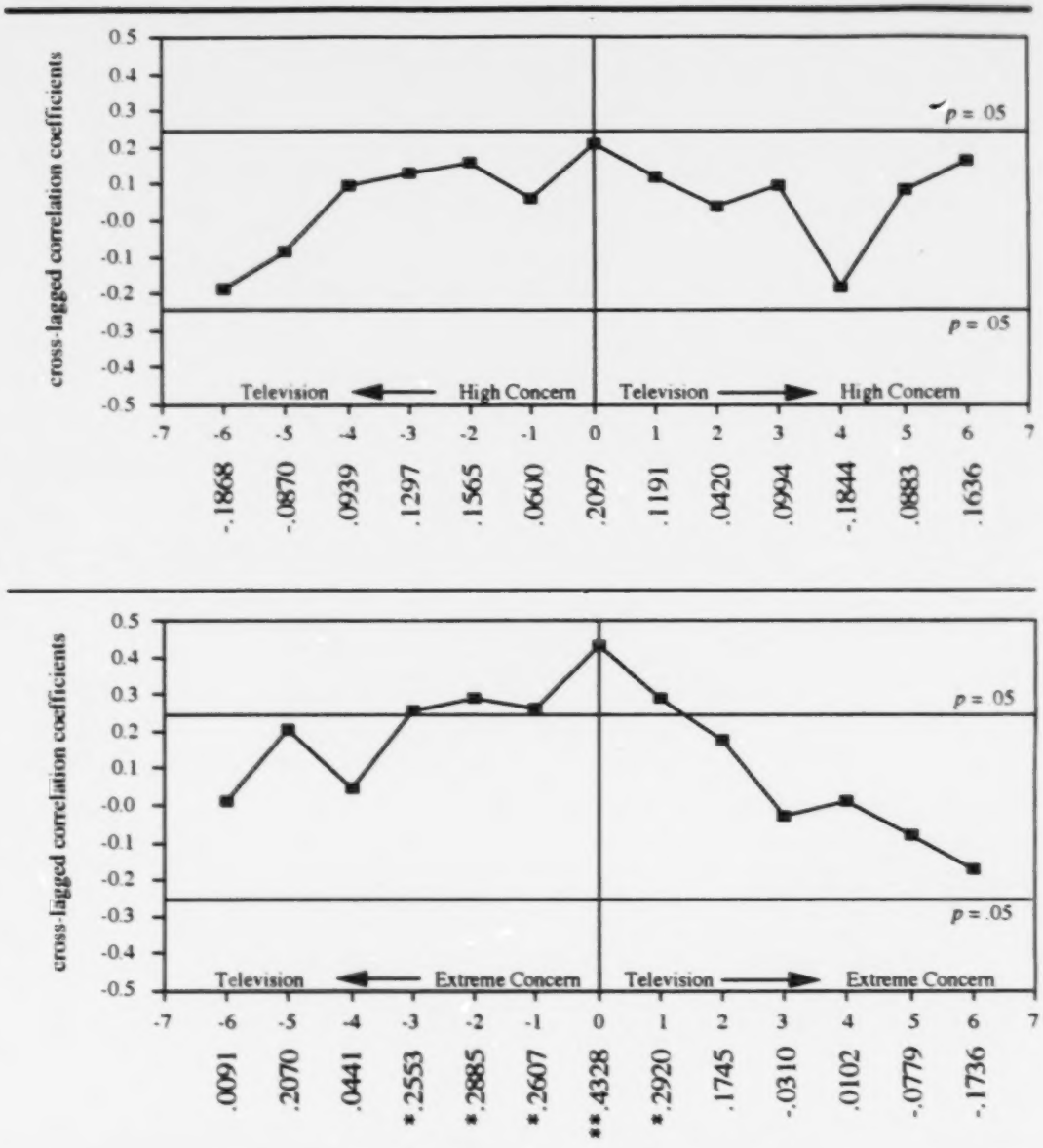

FIGURE 6. TELEVISION AND PUBLIC CONCERN.
Cross-lagged correlations on pre-whitened time series for television with the high concern index (top) and television with the extreme concern index (bottom). Both causal orderings are reflected on opposite sides of the graph. Precise correlation coefficients appear beneath each graph (* $p < .05$ ** $p < .01$). The horizontal lines across the graph represents the strength of the correlation required to achieve significance at the .05 level in a one tailed test when n = 42. The middle area is the rejection region.

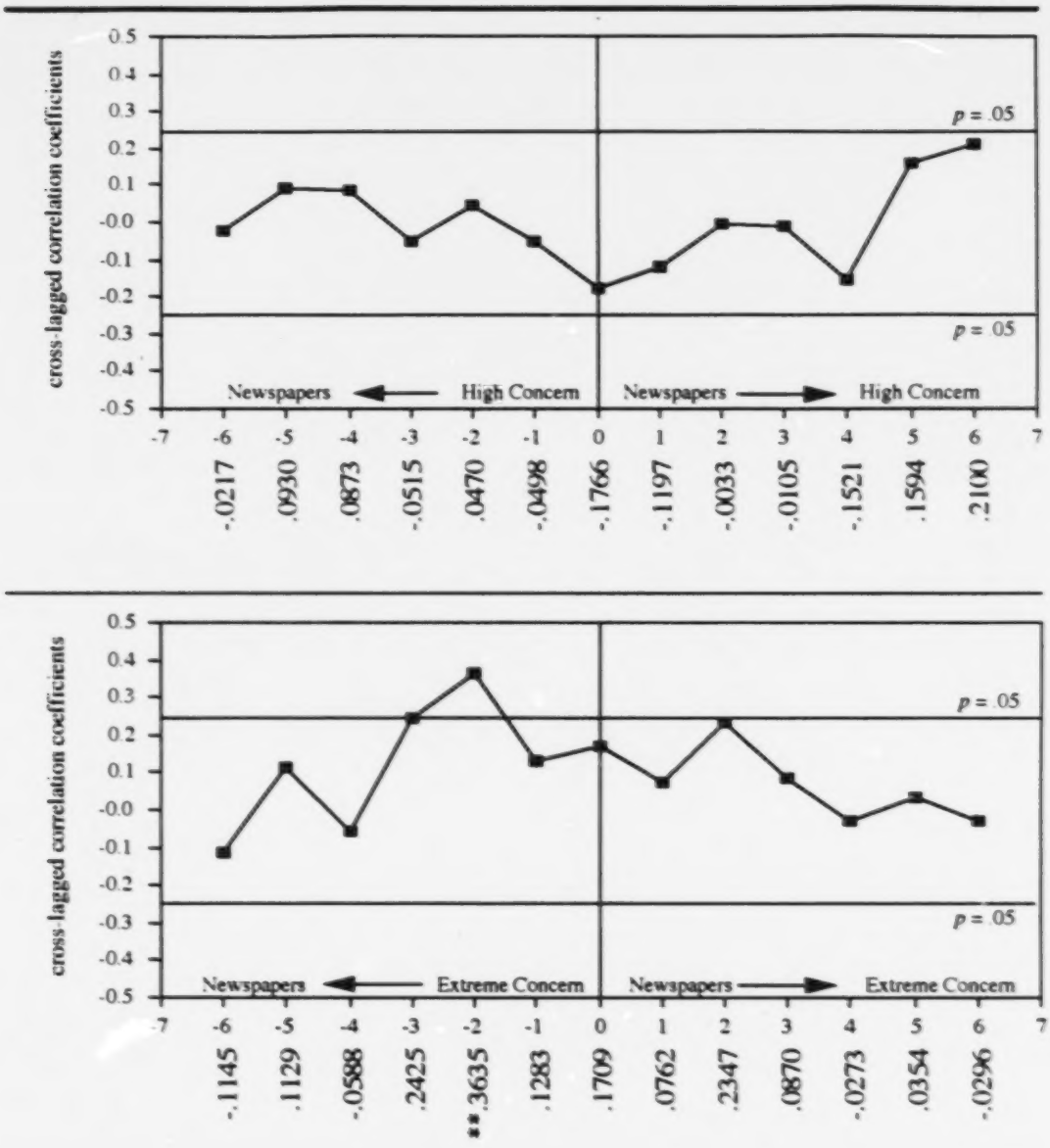

FIGURE 7. NEWSPAPERS AND PUBLIC CONCERN.
Cross-lagged correlations on pre-whitened time series for newspapers with the high concern index (top) and newspapers with the extreme concern index (bottom). Both causal orderings are reflected on opposite sides of the graph. Precise correlation coefficients appear beneath each graph (* $p < .05$ ** $p < .01$). The horizontal lines across the graph represents the strength of the correlation required to achieve significance at the .05 level in a one tailed test when n = 42. The middle area is the rejection region.

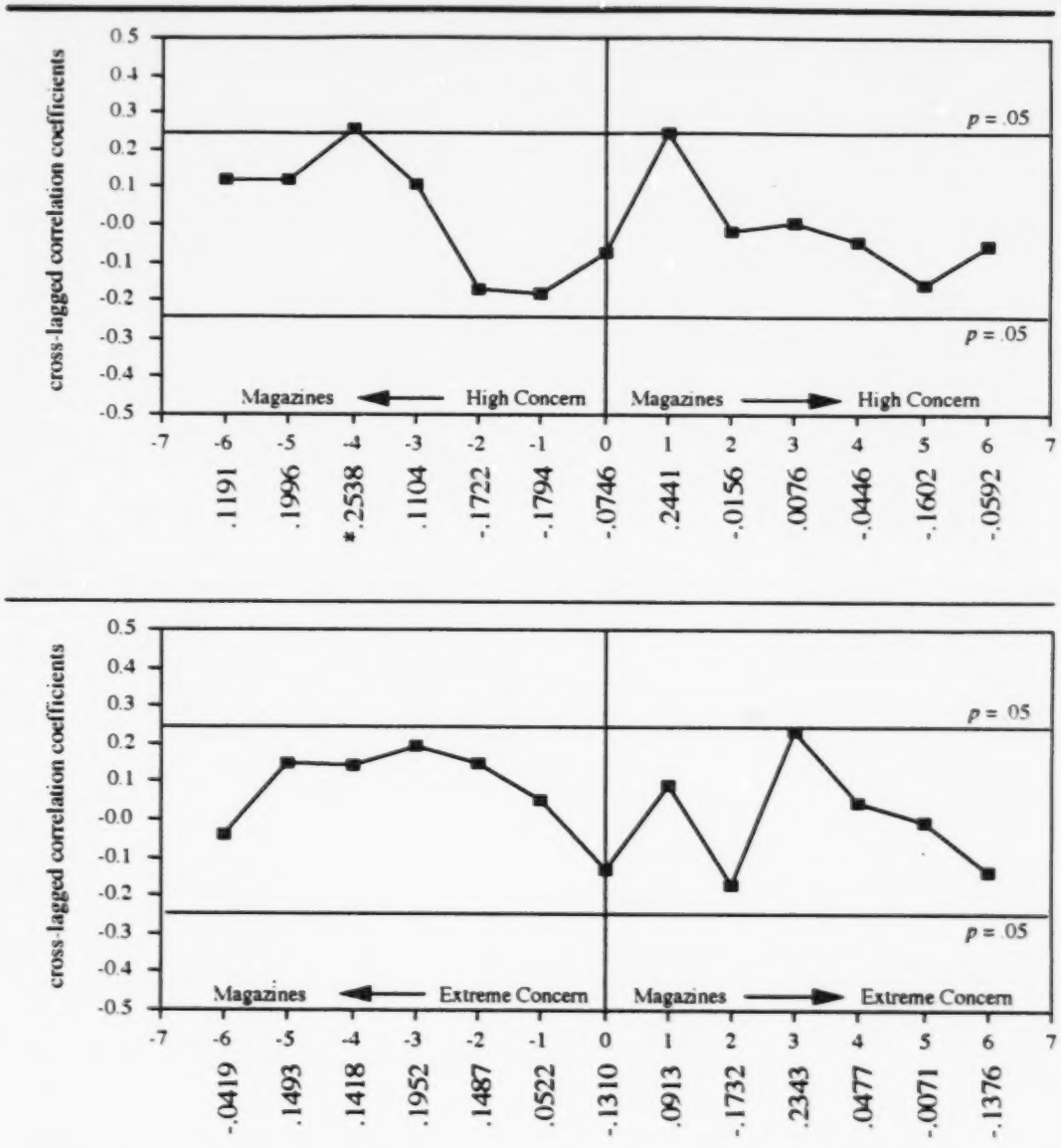

FIGURE 8. MAGAZINES AND PUBLIC CONCERN.
Cross-lagged correlations on pre-whitened time series for magazines with the high concern index (top) and magazines with the extreme concern index (bottom). Both causal orderings are reflected on opposite sides of the graph. Precise correlation coefficients appear beneath each graph (* $p < .05$ ** $p < .01$). The horizontal lines across the graph represents the strength of the correlation required to achieve significance at the .05 level in a one tailed test when n = 42. The middle area is the rejection region.

TABLE 2.
GRANGER VERIFICATION OF SIGNIFICANT CROSS-LAGGED CORRELATIONS

Each significant correlation from the cross-lag analysis is subjected to an F test for a comparison of complete and reduced regression models. The reduced models consist of the dependent variable regressed on itself at (t-1). Complete models are regressed on the (t-1) lagged endogenous variable plus on one or more lags of the other variable in question. When more than one lags are significant in the cross-lag analysis each individual lag is compared separately before a model containing all significant lags.

see figure	Dependent Var	Independent Variables	R^2	Increment
6	ECI	ECI (t-1)	.460	
		ECI (t-1) TV (t=0)	.546	.086 *
		ECI (t-1) TV (t-1)	.462	.002
6	TV	TV (t-1)	.006	
		TV (t-1) ECI (t=0)	.223	.217 **
		TV (t-1) ECI (t-1)	.081	.075
		TV (t-1) ECI (t-2)	.059	.053
		TV (t-1) ECI (t-3)	.014	.004
		TV (t-1) ECI (t=0) ECI (t-1) ECI (t-2) ECI (t-3)	.256	.250 *
8	MAG	MAG (t-1)	.041	
		MAG (t-1) HCI (t-4)	.050	.009
7	NP	NP (t-1)	.002	
		NP (t-1) ECI (t-2)	.115	.113 *

ECI = Extreme Concern Index HCI = High Concern Index
TV = television MAG = magazine NP = newspaper

* $p < .05$
** $p < .01$

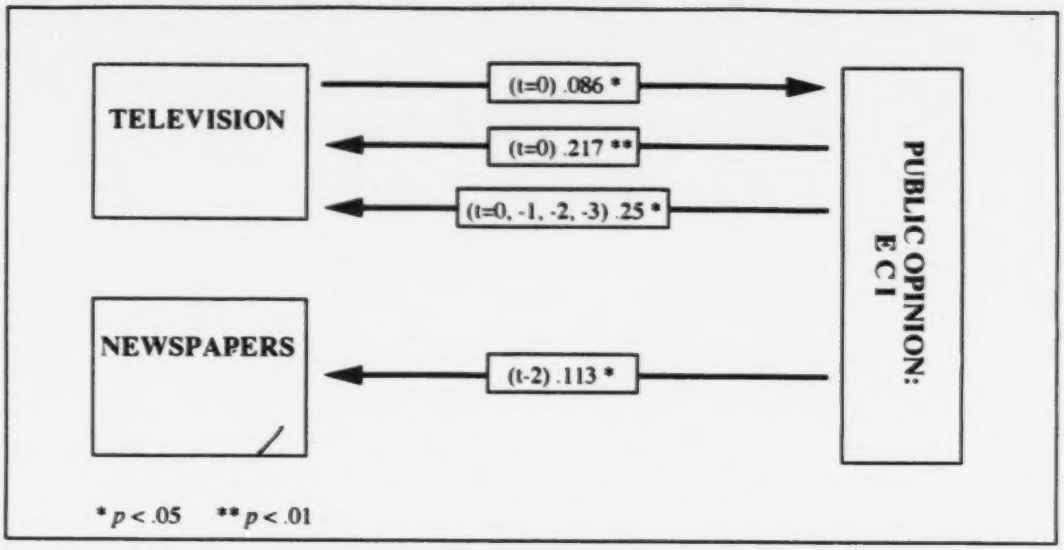

FIGURE 9. RELATIONAL SCHEMATIC OF GRANGER VERIFICATION— HYPOTHESIS TESTS
The relationships described in the Granger Analysis are graphically depicted here. Causal direction is indicated by the arrows. Data in the boxes are incremental R^2, significance, and length of lag on independent variable (source of the arrow).

For the case of television, the third hypothesis is supported: there is an interaction effect between television and public concern during the (t=0) month. There is also support for the second hypothesis: public concern influences television over a period of the three previous months.

For the case of newspapers the second hypothesis is supported: public concern influences newspapers at a lag of two months.

REFERENCES CITED

Blood, W. (1982). Agenda-Setting: A review of the theory. *Media Information Australia*, *26*, 3-12.

Brosius, H. B., & Kepplinger, H. M. (1992). Beyond agenda-setting: The influence of partisanship and television reporting on the electorate's voting intentions. *Journalism Quarterly, 69* (4), pp. 893-901.

Brosius, H. B., & Kepplinger, H. M. (1990). The agenda-setting function of television news: Static and dynamic views. *Communication Research, 17* (2), pp. 183-211.

Chatfield, C. (1989). *The analysis of time series. An introduction.* London: Chapman and Hall.

Cohen, B. C. (1963). *The press and foreign policy* . Princeton, NJ: Princeton University Press.

Downs, A. (1972). Up and down with ecology: The issue-attention cycle. *The Public Interest* , *28* , 38-50.

Dunlap, R. E. (1992). Trends in public opinion toward environmental issues: 1965-1992. In, R. E. Dunlap & A. G. Mertig (Eds.), *American Environmentalism. The U.S. Environmental Movement 1970-1990,* (pp. 89-115). Philadelphia: Taylor and Francis.

Eyal, C. H. (1980). *Time frame in agenda-setting research: a study of the conceptual and methodological factors affecting the time frame context of the agenda-setting process* . Unpublished doctoral dissertation, Syracuse University.

Frank, R., & Greenberg, M. (1980). *The public's use of television.* Beverly Hills: Sage.

Funkhouser, G. R. (1973). Trends in the media coverage of the issues of the 60s. *Journalism Quarterly* , *50* , 533-538.

Gans, H. J. (1979). *Deciding what's news: A study of CBS Evening News, NBC Nightly News, Newsweek and Time.* New York: Pantheon Books.

Gordon, M. T., & Heath, L. (1981). The news business, crime, and fear. In D. A. Lewis (Ed.), *Reactions to crime* (pp. 227-251). Beverly Hills, CA: Sage.

Hill, D. B. (1985). Viewer charactoristics and agenda-setting by television news. *Public Opinion Quarterly, 49,* pp. 340-350.

Iyengar, S., & Kinder, D. R. (1987). *News that matters: Television and American opinion.* Chicago: University of Chicago Press.

Iyengar, S., Peters, M. P., & Kinder, D. R. (1982). Experimental demonstrations of the "not so minimal" consequences of television news programs. *American Political Science Review* , *76* , 848-858.

Krull, R., & Paulson, A. S. (1977). Time series analysis in communication research. In P. M. Hirsch, P. V. Miller, & F. G. Kline (Eds.), *Strategies for communication research,* (pp. 231-256).. Beverly Hills: Sage.

Lichter, S. R., & Lichter, L. S. (1992). The great greenhouse debate. Media coverage and expert opinion on global warming. *Media Monitor, VI* (10), pp. 1-6.

Lippmann, W. (1922). *Public opinion* . New York: Macmillan.

Mazur, A. (1981). Media coverage and public opinion on scientific controversies. *Journal of Communication* , *31* , 106-115.

McCleary, R., & Hay, R. A., Jr. (1980). *Applied times series analysis for the social sciences.* Beverly Hills, CA: Sage.

McCombs, M. E. (1992). Explorers and surveyors: Expanding strategies for agenda-setting research. *Journalism Quarterly, 69* (4), pp. 813-24.

McCombs, M. E. (1981). The agenda-setting approach. In Nimmo and Saunders, (Eds.) *Handbook of political communication.* Beverly Hills: Sage.

McCombs, M. E., & Shaw, D. L. (1972). The agenda-setting function of the mass media. *Public Opinion Quarterly, 36,* 176-87.

Miller, M. M., Boone, J., & Fowler, D. (1990). The emerence of greenhouse effect on the issue agenda: a news stream analysis. *News Computing Journal, 7,* (4), pp. 25-38.

Palmgreen P., & Clarke, P. (1977). Agenda-setting with local and national issues. *Communication Research* , *4* , 435-452.

Reese, S, & Danielian, L. (1989). Intermedia influence and the drug issue: Converging on cocaine. In P. Shoemaker (Ed.), *Communication campaigns about drugs* (pp. 29-46). Hillsdale, NJ: Erlbaum.

Rogers, E. M., & Dearing, J. W. (1988). Agenda-setting research: Where has it been, where is it going? In J. Anderson (Ed.), *Communication Yearbook 11,* (pp. 555-94). Newbury Park, CA: Sage.

Rogers, E. M., Dearing, J. W., & Chang, S. (1991). AIDS in the 1980s: The agenda-setting process for a public issue. *Journalism Monographs* , *126.*

Salwen, M. B. (1988). Effect of accumulation of coverage on issue salience in agenda-setting. *Journalism Quarterly, 65,* pp. 100-106.

Schoenbach, K. (1991). Agenda-setting effects of print and television in West Germany. In D. L. Protess, & M. E. McCombs (Eds.), *Agenda setting: readings on media, public opinion, and policymaking* (pp. 127-129). Hillsdale NJ: Erlbaum.

Slade, D. H. (1990). A survey of informed opinion regarding the nature and reality of a 'global greenhouse warming.' *Climatic Change, 16,* pp. 1-4.

Smith, K. A. (1987). Newspaper coverage and public concern about community issues. *Journalism Monographs , 101.*

Spiegel, M. R. (1992). *Theory and problems of statistics* (2nd Ed.). New York: McGraw-Hill.

Trumbo, C. (1993). *Media, opinion, and global warming. An agenda-setting study of an environmental issue 1988-1992.* Unpublished master's thesis, Iowa State University, Ames IA.

Turk, J. V. (1986) Public relations' influence on the news. *Newspaper Research Journal , 7* (4), 15-27.

Weiss, H-J. (1992). Public issues and argumentation structures: An approach to the study of the contents of media agenda-setting. In J. A. Anderson (Ed.), *Communication yearbook 15* (pp. 374-396). Newbury Park, CA: Sage.

Winter, J. P., & Eyal, C. H. (1981). Agenda-setting for the civil rights issue. *Public Opinion Quarterly , 45 ,* 376-383.

Winter, J. P., Eyal, C. H., & Rogers, A. H. (1980). *Issue-specific agenda-setting: inflation, unemployment, and national unity in Canada, 1977-1978 .* Paper presented to the mass communication division, International Communication Association Annual Conference, Acapulco, Mexico.

Zucker, H. G. (1978). The variable nature of news media influence: In B. D. Ruben (Ed.). *Communication yearbook 2* (pp. 225-240). New Brunswick, NJ: Transaction Books.

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